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**FLUOR**

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**Memorandum**

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M8141-SLF-05-196

To: S. J. Trent A0-21 Date: April 27, 2005

From: S. L. Fitzgerald, Manager  
WSCF Analytical Chemistry

*[Handwritten signature]*

|     |                       |                     |
|-----|-----------------------|---------------------|
| cc: | w/Attachments         | w/o Attachments     |
|     | T. F. Dale S3-28      | D. J. Hart S3-30    |
|     | H. K. Meznarich S3-30 | M. A. Neely S3-30   |
|     | P. D. Mix S3-30       | H. S. Rich S3-28    |
|     | J. E. Trechter S3-30  | L. C. Swanson E6-35 |
|     |                       | File/LB             |

Subject: FINAL RESULTS FOR 200-LW-1/LW-2 CHARACTERIZATION - SOIL - SAMPLE  
DELIVERY GROUP WSCF20050622 SAF NUMBER F03-025

Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001,  
October 31, 2002  
(2) HNF-SD-CD-QAPP-017, Rev. 6, Waste Sampling & Characterization Facility Quality  
Assurance Plan

This letter contains a narrative (Attachment 1) for sample delivery group WSCF20050622, the analytical results (Attachment 2), and the sample receipt information (Attachment 3).

SLF/grf

Attachments 3

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**M8141-SLF-05-196**

**ATTACHMENT 1**

**NARRATIVE**

**Consisting of 8 pages  
Including cover page**

|                              |                       |
|------------------------------|-----------------------|
| <b>Sample Delivery Group</b> | <b>WSCF20050622</b>   |
| <b>Sample Matrix</b>         | <b>Soil</b>           |
| <b>Sample Visual</b>         | <b>N/A</b>            |
| <b>SAF Number</b>            | <b>F03-025</b>        |
| <b>Data Deliverable</b>      | <b>Summary Report</b> |

### Introduction

One (1) 200-LW-1/LW-2 Characterization (216-Z-7 [197.5' – 200']), sample (B19411) was received at the WSCF Laboratory on March 18, 2005. The sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

### Analytical Methodology for Requested Analyses

#### **Inorganic**

- Ammonia by EPA Method 300.7. Analytical work was performed with no deviations to the approved method.
- Anions by EPA Method 300. Analytical work was performed with no deviations to the approved method.
- Cyanide by EPA Method 335.2. Analytical work was performed with no deviations to the approved method.
- ICP-AES Metals by EPA Method 6010B. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 150.1. Analytical work was performed with no deviations to the approved method.

## **Organic**

- Alcohols/Glycols by EPA Method 8015. Analytical work was performed with no deviations to the approved method.
- PCBs by EPA Method 8082B. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.
- TPH Diesel Range by WDOE Method NWTPH-Dx. Analytical work was performed with no deviations to the approved method.
- TPH Gas Range by WDOE Method NWTPH-Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

## **Radiochemistry**

- All RadChem analyses (AEA [Americium, Neptunium, Plutonium and Uranium] and GEA) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

## **Inorganic Comments**

**Ammonia** - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 13 for QC details.

All QC controls are within the established limits.

**Anions** - The hold times for Nitrite and Nitrate analysis were not met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See pages 14 through 15 for QC details.

Analytical Notes:

- Preparation Date: 23-mar-2005
- Phosphate: Low recoveries due to probable matrix interference.

All other QC controls are within the established limits.

**Cyanide** - The hold time for this analysis was met. A Blank, Preparation Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 16 for QC details.

All QC controls are within the established limits.

**ICP-AES Metals** (Boron and Bismuth only) – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 17 for QC details. Analytical Notes:

- Preparation Date: 21-mar-2005
- Boron and Bismuth - The analytes detected in the associated preparation Blank sample were evaluated and there was no significant effect on the sample results.

All other QC controls are within the established limits.

**ICP-MS Metals** – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 18 through 20 for QC details. Analytical Notes:

- Preparation Date: 30-mar-2005
- Silver and Antimony – The Laboratory Control Sample recoveries were outside established laboratory limits, but were within manufacturer's limits.

All other QC controls are within the established limits.

**Percent Solids** – analyzed for organic moisture correction.

**pH** - The hold time for this analysis was met. All laboratory QC controls are within the established limits. Refer to page 21 for QC detail.

#### **Organic Comments**

- Sample results are moisture corrected and reported on dry weight basis.

**Alcohol/Glycols** - The hold time for this analysis were met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 25 for QC details. Analytical Notes:

- Preparation Date: 01-apr-2005
- Ethylene glycol – The Spike Relative Percent Difference slightly exceeded established laboratory limits, however, the Matrix Spike and Matrix Spike Duplicate QC recoveries

were within established laboratory limits. Sample result was below the detection limit and U-flagged.

All other QC controls are within the established limits.

**PCBs** – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 26 through 27 for QC details. Analytical Note:

- Preparation Date: 23-mar-2005.

All QC controls are within the established limits.

**Semi-VOA** – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 28 through 31 for QC details. Analytical Notes:

- Preparation Date: 31-mar-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19412 (SDG# 20050656, SAF# F03-025).

All QC controls are within the established limits.

**TPHD-WA** - The hold time for this analysis were met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 32 for QC details. Analytical Notes:

- Preparation Date: 23-mar-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B19412 (SDG# 20050656, SAF# F03-025).

All QC controls are within the established limits.

**TPHG-WA** - The hold time for this analysis were met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GRP Letter of Instruction. See page 33 for QC details. Analytical Note:

- Preparation Date: 31-mar-2005.

All QC controls are within the established limits.

**VOA** – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 34 through 36 for QC details.

All QC controls are within the established limits.

## **Radiochemistry Comments**

**RadChem** – There are no hold times associated with WSCF's radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GRP Letter of Instruction. See pages 38 through 42 for QC details. Analytical Notes:

- Eu-155 (GEA) – There should be no “U” qualifiers associated with Eu-155 data identified in the attached analytical report.
- Plutonium - The duplicate relative percent difference exceeded established laboratory limits. The RPD criterion is not applicable to low level sample activity.
- Duplicate QC sample (AEA [Neptunium]) was analyzed on sample# B1CF14 (SDG# 20050608, SAF# F05-010).
- Neptunium-237 –Laboratory control sample (LCS) recovery was below established limits and may be attributed to a slight excess of ascorbic acid which occurs due to low iron levels in the matrix and causes retention of the Neptunium during separation. The solid matrix sample spike recoveries however, were within established laboratory limits. Sample result is considered to be an estimate. Radiochemical Matrix Spike Recovery Data are summarized below.

| <b>Radiochemical Matrix Spike Recovery</b> |               |         |                                 |
|--|---------------|---------|---------------------------------|
| Sample Number                              | Lab Sample ID | Isotope | Matrix Spike Recovery (Percent) |
| <u>Neptunium-237</u>                       |               |         |                                 |
| LCS DUPLICATE                              |               | Np-237  | 49.5                            |
| B1CF14                                     | W050001009    | Np-237  | 102.0                           |
| DUPLICATE                                  | W050001009    | Np-237  | 75.0                            |
| B19411                                     | W050001015    | Np-237  | 62.6                            |

- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

| Additional Batch QC Data (Results) |               |         |                       |       |
|------------------------------------|---------------|---------|-----------------------|-------|
| Sample Number                      | Lab Sample ID | Isotope | QC                    |       |
|                                    |               |         | Results<br>(pCi/gram) | RPD % |
| <u>Uranium-234/ Uranium-235</u>    |               |         |                       |       |
| BLANK                              |               | U-234   | 1.573E-02             |       |
| BLANK                              |               | U-235   | 1.906E-07             |       |
| B19411                             | W050001015    | U-234   | 2.083E-01             |       |
| DUPLICATE                          | W050001015    | U-234   | 1.267E-01             | 48.7  |
| B19411                             | W050001015    | U-235   | 5.292E-02             |       |
| DUPLICATE                          | W050001015    | U-235   | 1.166E-02             | 127.8 |
| <u>Plutonium-238</u>               |               |         |                       |       |
| BLANK                              |               | Pu-238  | 2.822E-02             |       |
| B19411                             | W050001015    | Pu-238  | -7.494E-02            |       |
| DUPLICATE                          | W050001015    | Pu-238  | 4.193E-02             | 287.1 |

- Plutonium-242, Americium-243 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

| Radiochemical Tracer Recovery |               |         |                           |
|-------------------------------|---------------|---------|---------------------------|
| Sample Number                 | Lab Sample ID | Isotope | Tracer Recovery (Percent) |
| <u>Plutonium-242</u>          |               |         |                           |
| BLANK                         |               | Pu-242  | 16.6                      |
| LCS                           |               | Pu-242  | 26.4                      |
| B19411                        | W050001015    | Pu-242  | 78.2                      |

| Radiochemical Tracer Recovery |               |         |                           |
|-------------------------------|---------------|---------|---------------------------|
| Sample Number                 | Lab Sample ID | Isotope | Tracer Recovery (Percent) |
| DUPLICATE                     | W050001015    | Pu-242  | 94.8                      |
| <b><u>Americium-243</u></b>   |               |         |                           |
| BLANK                         |               | Am-243  | 92.1                      |
| LCS                           |               | Am-243  | 97.9                      |
| B19411                        | W050001015    | Am-243  | 100.1                     |
| DUPLICATE                     | W050001015    | Am-243  | 98.9                      |
| <b><u>Uranium-232</u></b>     |               |         |                           |
| BLANK                         |               | U-232   | 64.1                      |
| LCS                           |               | U-232   | 91.4                      |
| B19411                        | W050001015    | U-232   | 98.4                      |
| DUPLICATE                     | W050001015    | U-232   | 98.3                      |

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix  
WSCF Client Services

Abbreviations

Hg – mercury  
IC – ion chromatography  
ICP – inductively coupled plasma  
ICP/AES – ICP/atomic emission spectroscopy  
ICP/MS – ICP/mass spectrometry  
Total U – total uranium  
AT/TB – total alpha/total beta  
AEA – Alpha Energy Analysis  
WTPH-G – Total Hydrocarbons-Gasoline

Am – americium  
Cm - curium  
Pu – plutonium  
Np – neptunium  
GEA – gamma energy analysis  
H3 – Tritium  
Sr – Strontium 89, 90  
WTPH-D – Total Hydrocarbons-Diesel  
TSS – Total Suspended Solids

**M8141-SLF-05-196**

**ATTACHMENT 2**

**ANALYTICAL RESULTS**

Consisting of 41 pages  
Including cover page

# WSCF ANALYTICAL RESULTS REPORT

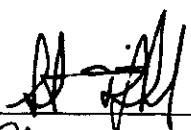
for

**Groundwater Remediation Program**

**Richland, WA 99354**

**Attention: Steve Trent**

Analytical:

 S. Fitzgerald

Client Services:

Bob P.U. Mire 4/27/2005

*All results are reported on an "as received" basis unless otherwise noted in the comment section.*

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Contract#: FH-EIS-2003-MEM-001

Report#: WSCF20050622

Report Date: 27-apr-2005

Report WGPP/ver. 1.1

Groundwater Remediation Program

Page 1

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent      **Group #:** WSCF20050622  
**Project:** F03-025: F03-025

| Sample #         | Client ID | CAS # | Test Performed | Matrix     | WSCF Method          | RQ   | Result     | Unit | DF       | MDL   | Analyze Sample | Receive |
|------------------|-----------|-------|----------------|------------|----------------------|------|------------|------|----------|-------|----------------|---------|
| <b>Inorganic</b> |           |       |                |            |                      |      |            |      |          |       |                |         |
| W050001015       | B19411    | GRP   | TRENT          | 57-12-5    | Cyanide              | SOIL | LA-695-402 | U    | < 0.200  | mg/kg | 1.00           | 0.20    |
| W050001015       | B19411    | GRP   | TRENT          | NH4-N      | Nitrogen in ammonium | SOIL | LA-503-401 |      | 0.504    | mg/kg | 50.00          | 0.20    |
| W050001015       | B19411    | GRP   | TRENT          | TS         | Total solids         | SOIL | LA-519-412 |      | 97.9     | %     | 1.00           | 0.0     |
| W050001015       | B19411    | GRP   | TRENT          | PH         | pH Measurement       | SOIL | LA-212-411 |      | 9.43     | pH    | 1.00           | 0.010   |
| W050001015       | B19411    | GRP   | TRENT          | 16984-48-8 | Fluoride             | SOIL | LA-533-410 | U    | < 1.15   | mg/kg | 50.00          | 1.2     |
| W050001015       | B19411    | GRP   | TRENT          | 16887-00-6 | Chloride             | SOIL | LA-533-410 |      | 5.34     | mg/kg | 50.00          | 2.6     |
| W050001015       | B19411    | GRP   | TRENT          | NO2-N      | Nitrogen in Nitrite  | SOIL | LA-533-410 | U    | < 0.950  | mg/kg | 50.00          | 0.95    |
| W050001015       | B19411    | GRP   | TRENT          | NO3-N      | Nitrogen in Nitrate  | SOIL | LA-533-410 | U    | < 0.650  | mg/kg | 50.00          | 0.65    |
| W050001015       | B19411    | GRP   | TRENT          | PO4-P      | Phosphate (P) by IC  | SOIL | LA-533-410 | U    | < 2.70   | mg/kg | 50.00          | 2.7     |
| W050001015       | B19411    | GRP   | TRENT          | 14808-79-8 | Sulfate              | SOIL | LA-533-410 | U    | < 5.00   | mg/kg | 50.00          | 5.0     |
| W050001015       | B19411    | GRP   | TRENT          | 7440-42-8  | Boron                | SOIL | LA-505-411 | U    | < 2.50   | mg/kg | 96.15          | 2.5     |
| W050001015       | B19411    | GRP   | TRENT          | 7440-69-9  | Bismuth              | SOIL | LA-505-411 | U    | < 2.12   | mg/kg | 96.15          | 2.1     |
| W050001015       | B19411    | GRP   | TRENT          | 7440-02-0  | Nickel               | SOIL | LA-505-412 |      | 23.4     | mg/kg | 9.60           | 0.20    |
| W050001015       | B19411    | GRP   | TRENT          | 7440-22-4  | Silver               | SOIL | LA-505-412 |      | 0.0304   | mg/kg | 9.60           | 9.6e-03 |
| W050001015       | B19411    | GRP   | TRENT          | 7440-36-0  | Antimony             | SOIL | LA-505-412 | U    | < 6.85   | mg/kg | 9.60           | 6.8     |
| W050001015       | B19411    | GRP   | TRENT          | 7440-39-3  | Barium               | SOIL | LA-505-412 |      | 53.0     | mg/kg | 9.60           | 0.88    |
| W050001015       | B19411    | GRP   | TRENT          | 7440-41-7  | Beryllium            | SOIL | LA-505-412 |      | 0.132    | mg/kg | 9.60           | 0.019   |
| W050001015       | B19411    | GRP   | TRENT          | 7440-43-9  | Cadmium              | SOIL | LA-505-412 | U    | < 0.0192 | mg/kg | 9.60           | 0.019   |
| W050001015       | B19411    | GRP   | TRENT          | 7440-47-3  | Chromium             | SOIL | LA-505-412 |      | 42.1     | mg/kg | 9.60           | 3.2     |
| W050001015       | B19411    | GRP   | TRENT          | 7440-50-8  | Copper               | SOIL | LA-505-412 |      | 10.1     | mg/kg | 9.60           | 0.61    |
| W050001015       | B19411    | GRP   | TRENT          | 7439-92-1  | Lead                 | SOIL | LA-505-412 |      | 4.07     | mg/kg | 9.60           | 0.25    |
| W050001015       | B19411    | GRP   | TRENT          | 7439-97-6  | Mercury              | SOIL | LA-505-412 |      | 0.388    | mg/kg | 9.60           | 9.6e-03 |
| W050001015       | B19411    | GRP   | TRENT          | 7440-61-1  | Uranium              | SOIL | LA-505-412 |      | 0.214    | mg/kg | 9.60           | 0.15    |
| W050001015       | B19411    | GRP   | TRENT          | 7440-38-2  | Arsenic              | SOIL | LA-505-412 | U    | < 2.30   | mg/kg | 9.60           | 2.3     |
| W050001015       | B19411    | GRP   | TRENT          | 7782-49-2  | Selenium             | SOIL | LA-505-412 | U    | < 0.701  | mg/kg | 9.60           | 0.70    |

**MDL = Minimum Detection Limit**

U - Analyzed for but not detected above limiting criteria.

**RQ = Result Qualifier**

**DF = Dilution Factor**

\* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

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# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: Ammonia (N) by IC

SAF Number: F03-025  
 Sample Date: 03/18/05  
 Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

**Lab ID: W050001015**  
**BATCH QC ASSOCIATED WITH SAMPLE**

|     |                   |           |          |        |         |          |        |         |  |
|-----|-------------------|-----------|----------|--------|---------|----------|--------|---------|--|
| DUP | Ammonia (N) by IC | 7664-41-7 | 4.68e-01 | 7.407  | RPD     | 03/24/05 | 0.000  | 20.000  |  |
| MS  | Ammonia (N) by IC | 7664-41-7 | 3.80e-01 | 92.233 | % Recov | 03/24/05 | 75.000 | 125.000 |  |
| MSD | Ammonia (N) by IC | 7664-41-7 | 3.88e-01 | 94.175 | % Recov | 03/24/05 | 75.000 | 125.000 |  |

**BATCH QC**

|       |                   |           |          |        |         |          |        |         |   |
|-------|-------------------|-----------|----------|--------|---------|----------|--------|---------|---|
| BLANK | Ammonia (N) by IC | 7664-41-7 | <4.00e-3 | n/a    | mg/L    | 03/24/05 | 0.000  | 30.000  | U |
| BLANK | Ammonia (N) by IC | 7664-41-7 | <4.00e-3 | n/a    | mg/L    | 03/24/05 | 0.000  | 30.000  | U |
| LCS   | Ammonia (N) by IC | 7664-41-7 | 7.44e+01 | 90.291 | % Recov | 03/24/05 | 80.000 | 120.000 |   |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

SAF Number: F03-025

Matrix: SOLID

Sample Date: 03/18/05

Test: Anions by Ion Chromatography

Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|     |                     |            |          |         |         |          |        |         |   |
|-----|---------------------|------------|----------|---------|---------|----------|--------|---------|---|
| DUP | Chloride            | 16887-00-6 | 4.66e+00 | 13.600  | RPD     | 03/23/05 | 0.000  | 20.000  |   |
| DUP | Fluoride            | 16984-48-8 | <1.15e0  | n/a     | RPD     | 03/23/05 | 0.000  | 20.000  | U |
| DUP | Nitrogen in Nitrite | NO2-N      | <9.50e-1 | n/a     | RPD     | 03/23/05 | 0.000  | 20.000  | U |
| DUP | Nitrogen in Nitrate | NO3-N      | <6.50e-1 | n/a     | RPD     | 03/23/05 | 0.000  | 20.000  | U |
| DUP | Phosphate (P) by IC | PO4-P      | <2.70e0  | n/a     | RPD     | 03/23/05 | 0.000  | 20.000  | U |
| DUP | Sulfate             | 14808-79-8 | 1.15e+01 | n/a     | RPD     | 03/23/05 | 0.000  | 20.000  |   |
| MS  | Chloride            | 16887-00-6 | 9.72e-01 | 97.200  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MS  | Fluoride            | 16984-48-8 | 4.41e-01 | 89.271  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MS  | Nitrogen in Nitrite | NO2-N      | 4.87e-01 | 97.400  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MS  | Nitrogen in Nitrate | NO3-N      | 4.28e-01 | 94.900  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MS  | Phosphate (P) by IC | PO4-P      | 7.06e-01 | 72.859  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MS  | Sulfate             | 14808-79-8 | 2.01e+00 | 100.500 | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MSD | Chloride            | 16887-00-6 | 9.57e-01 | 95.700  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MSD | Fluoride            | 16984-48-8 | 4.45e-01 | 90.081  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MSD | Nitrogen in Nitrite | NO2-N      | 4.89e-01 | 97.800  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MSD | Nitrogen in Nitrate | NO3-N      | 4.19e-01 | 92.905  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MSD | Phosphate (P) by IC | PO4-P      | 7.28e-01 | 75.129  | % Recov | 03/23/05 | 75.000 | 125.000 |   |
| MSD | Sulfate             | 14808-79-8 | 2.03e+00 | 101.500 | % Recov | 03/23/05 | 75.000 | 125.000 |   |

## BATCH QC

|       |                     |            |          |     |      |          |       |         |   |
|-------|---------------------|------------|----------|-----|------|----------|-------|---------|---|
| BLANK | Chloride            | 16887-00-6 | <5.20e-2 | n/a | mg/L | 03/23/05 | 0.000 | 300.000 | U |
| BLANK | Chloride            | 16887-00-6 | <5.20e-2 | n/a | mg/L | 03/23/05 | 0.000 | 300.000 | U |
| BLANK | Fluoride            | 16984-48-8 | <2.30e-2 | n/a | mg/L | 03/23/05 | 0.000 | 300.000 | U |
| BLANK | Fluoride            | 16984-48-8 | <2.30e-2 | n/a | mg/L | 03/23/05 | 0.000 | 300.000 | U |
| BLANK | Nitrogen in Nitrite | NO2-N      | <1.90e-2 | n/a | mg/L | 03/23/05 | 0.000 | 300.000 | U |
| BLANK | Nitrogen in Nitrite | NO2-N      | <1.90e-2 | n/a | mg/L | 03/23/05 | 0.000 | 300.000 | U |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: Anions by Ion Chromatography

SAF Number: F03-025

Sample Date:

Receive Date:

| QC Type | Analyte             | CAS #      | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------------------|------------|----------|----------|---------|---------------|-------------|-------------|----|
| BLANK   | Nitrogen in Nitrate | NO3-N      | <1.30e-2 | n/a      | mg/L    | 03/23/05      | 0.000       | 300.000     | U  |
| BLANK   | Nitrogen in Nitrate | NO3-N      | <1.30e-2 | n/a      | mg/L    | 03/23/05      | 0.000       | 300.000     | U  |
| BLANK   | Phosphate (P) by IC | PO4-P      | <5.40e-2 | n/a      | mg/L    | 03/23/05      | 0.000       | 300.000     | U  |
| BLANK   | Phosphate (P) by IC | PO4-P      | <5.40e-2 | n/a      | mg/L    | 03/23/05      | 0.000       | 300.000     | U  |
| BLANK   | Sulfate             | 14808-79-8 | <1.00e-1 | n/a      | mg/L    | 03/23/05      | 0.000       | 300.000     | U  |
| BLANK   | Sulfate             | 14808-79-8 | <1.00e-1 | n/a      | mg/L    | 03/23/05      | 0.000       | 300.000     | U  |
| LCS     | Chloride            | 16887-00-6 | 1.95e+02 | 97.500   | % Recov | 03/23/05      | 80.000      | 120.000     |    |
| LCS     | Fluoride            | 16984-48-8 | 8.98e+01 | 90.983   | % Recov | 03/23/05      | 80.000      | 120.000     |    |
| LCS     | Nitrogen in Nitrite | NO2-N      | 9.48e+01 | 94.800   | % Recov | 03/23/05      | 80.000      | 120.000     |    |
| LCS     | Nitrogen in Nitrate | NO3-N      | 8.17e+01 | 90.677   | % Recov | 03/23/05      | 80.000      | 120.000     |    |
| LCS     | Phosphate (P) by IC | PO4-P      | 1.76e+02 | 90.815   | % Recov | 03/23/05      | 80.000      | 120.000     |    |
| LCS     | Sulfate             | 14808-79-8 | 3.77e+02 | 94.486   | % Recov | 03/23/05      | 80.000      | 120.000     |    |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|         |                               |         |        |        |         |          |        |         |  |
|---------|-------------------------------|---------|--------|--------|---------|----------|--------|---------|--|
| MS      | Cyanide by Midi/Spectrophotom | 57-12-5 | 98.0   | 98.000 | % Recov | 03/29/05 | 75.000 | 125.000 |  |
| MSD     | Cyanide by Midi/Spectrophotom | 57-12-5 | 85.0   | 85.000 | % Recov | 03/29/05 | 75.000 | 125.000 |  |
| SPK-RPD | Cyanide by Midi/Spectrophotom | 57-12-5 | 85.000 | 14.208 | RPD     | 03/29/05 | 0.000  | 20.000  |  |

## BATCH QC

|           |                               |         |      |        |         |          |        |         |   |
|-----------|-------------------------------|---------|------|--------|---------|----------|--------|---------|---|
| BLANK     | Cyanide by Midi/Spectrophotom | 57-12-5 | <0.2 | n/a    | ug/L    | 03/29/05 | -4.000 | 4.000   | U |
| BLNK-PREP | Cyanide by Midi/Spectrophotom | 57-12-5 | <0.2 | n/a    | ug/L    | 03/29/05 | -4.000 | 4.000   | U |
| LCS       | Cyanide by Midi/Spectrophotom | 57-12-5 | 99.0 | 99.000 | % Recov | 03/29/05 | 85.000 | 115.000 |   |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: ICP Metals Analysis, Grd H2O P

SAF Number: F03-025

Sample Date: 03/17/05

Receive Date: 03/17/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

**Lab ID: W050001009**

## BATCH QC ASSOCIATED WITH SAMPLE

|         |       |           |        |        |         |          |        |         |  |
|---------|-------|-----------|--------|--------|---------|----------|--------|---------|--|
| MS      | Boron | 7440-42-8 | 186    | 93.939 | % Recov | 03/21/05 | 75.000 | 125.000 |  |
| MSD     | Boron | 7440-42-8 | 173    | 93.514 | % Recov | 03/21/05 | 75.000 | 125.000 |  |
| SPK-RPD | Boron | 7440-42-8 | 93.514 | 0.453  | RPD     | 03/21/05 | 0.000  | 20.000  |  |

**Lab ID: W050001015**

## BATCH QC ASSOCIATED WITH SAMPLE

|         |         |           |        |        |         |          |        |         |  |
|---------|---------|-----------|--------|--------|---------|----------|--------|---------|--|
| MS      | Boron   | 7440-42-8 | 180    | 92.784 | % Recov | 03/21/05 | 75.000 | 125.000 |  |
| MS      | Bismuth | 7440-69-9 | 168    | 86.598 | % Recov | 03/21/05 | 75.000 | 125.000 |  |
| MSD     | Boron   | 7440-42-8 | 187    | 93.970 | % Recov | 03/21/05 | 75.000 | 125.000 |  |
| MSD     | Bismuth | 7440-69-9 | 180    | 90.452 | % Recov | 03/21/05 | 75.000 | 125.000 |  |
| SPK-RPD | Boron   | 7440-42-8 | 93.970 | 1.270  | RPD     | 03/21/05 | 0.000  | 20.000  |  |
| SPK-RPD | Bismuth | 7440-69-9 | 90.452 | 4.354  | RPD     | 03/21/05 | 0.000  | 20.000  |  |

## BATCH QC

|       |         |           |        |        |         |          |        |         |  |
|-------|---------|-----------|--------|--------|---------|----------|--------|---------|--|
| BLANK | Boron   | 7440-42-8 | 2.8e-2 | 0.026  | ug/L    | 03/21/05 |        |         |  |
| BLANK | Bismuth | 7440-69-9 | 2.2e-2 | 0.022  | ug/L    | 03/21/05 |        |         |  |
| LCS   | Boron   | 7440-42-8 | 288    | 97.297 | % Recov | 03/21/05 | 45.000 | 156.000 |  |
| LCS   | Bismuth | 7440-69-9 | 181    | 90.955 | % Recov | 03/21/05 | 80.000 | 120.000 |  |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

SAF Number: F03-025

Matrix: SOLID

Sample Date: 03/18/05

Test: ICP-2008 MS All possible metal

Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|     |           |           |           |         |         |          |        |         |  |
|-----|-----------|-----------|-----------|---------|---------|----------|--------|---------|--|
| MS  | Silver    | 7440-22-4 | 373.66962 | 93.417  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Arsenic   | 7440-38-2 | 417       | 104.250 | % Recov | 04/05/05 | 70.000 | 130.000 |  |
| MS  | Barium    | 7440-39-3 | 429.05    | 107.262 | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Beryllium | 7440-41-7 | 372.5685  | 93.142  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Cadmium   | 7440-43-9 | 406.1     | 101.525 | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Chromium  | 7440-47-3 | 390.02    | 97.505  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Copper    | 7440-50-8 | 388.81    | 97.153  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Mercury   | 7439-97-6 | 19.5917   | 97.958  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Nickel    | 7440-02-0 | 399.07    | 99.767  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Lead      | 7439-92-1 | 393.231   | 98.308  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Antimony  | 7440-36-0 | 374.4     | 93.600  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MS  | Selenium  | 7782-49-2 | 429       | 107.250 | % Recov | 04/05/05 | 70.000 | 130.000 |  |
| MS  | Uranium   | 7440-61-1 | 389.1858  | 97.296  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Silver    | 7440-22-4 | 375.26962 | 93.817  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Arsenic   | 7440-38-2 | 431       | 107.750 | % Recov | 04/05/05 | 70.000 | 130.000 |  |
| MSD | Barium    | 7440-39-3 | 410.25    | 102.562 | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Beryllium | 7440-41-7 | 376.3685  | 94.092  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Cadmium   | 7440-43-9 | 405.9     | 101.475 | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Chromium  | 7440-47-3 | 382.92    | 95.730  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Copper    | 7440-50-8 | 400.81    | 100.203 | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Mercury   | 7439-97-6 | 19.4117   | 97.059  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Nickel    | 7440-02-0 | 399.47    | 99.868  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Lead      | 7439-92-1 | 390.631   | 97.658  | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Antimony  | 7440-36-0 | 427.5     | 106.875 | % Recov | 03/30/05 | 70.000 | 130.000 |  |
| MSD | Selenium  | 7782-49-2 | 439       | 109.750 | % Recov | 04/05/05 | 70.000 | 130.000 |  |
| MSD | Uranium   | 7440-61-1 | 387.5858  | 96.896  | % Recov | 03/30/05 | 70.000 | 130.000 |  |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type         | Analyte   | CAS #     | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|-----------------|-----------|-----------|----------|----------|---------|---------------|-------------|-------------|----|
| SPK-RPD         | Silver    | 7440-22-4 | 93.817   | 0.427    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Arsenic   | 7440-38-2 | 107.750  | 3.302    | RPD     | 04/05/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Barium    | 7440-39-3 | 102.562  | 4.480    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Beryllium | 7440-41-7 | 94.092   | 1.015    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Cadmium   | 7440-43-9 | 101.475  | 0.049    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Chromium  | 7440-47-3 | 95.730   | 1.837    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Copper    | 7440-50-8 | 100.203  | 3.091    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Mercury   | 7439-97-6 | 97.059   | 0.922    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Nickel    | 7440-02-0 | 99.868   | 0.101    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Lead      | 7439-92-1 | 97.658   | 0.663    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Antimony  | 7440-36-0 | 106.875  | 13.244   | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Selenium  | 7782-49-2 | 109.750  | 2.304    | RPD     | 04/05/05      | 0.000       | 20.000      |    |
| SPK-RPD         | Uranium   | 7440-61-1 | 96.896   | 0.412    | RPD     | 03/30/05      | 0.000       | 20.000      |    |
| <b>BATCH QC</b> |           |           |          |          |         |               |             |             |    |
| BLANK           | Silver    | 7440-22-4 | <0.1     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Arsenic   | 7440-38-2 | <0.4     | n/a      | ug/L    | 04/05/05      |             | U           |    |
| BLANK           | Barium    | 7440-39-3 | <3.5     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Beryllium | 7440-41-7 | <0.1     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Cadmium   | 7440-43-9 | <0.1     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Chromium  | 7440-47-3 | <3.3     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Copper    | 7440-50-8 | <1.3     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Mercury   | 7439-97-6 | <0.1     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Nickel    | 7440-02-0 | <0.1     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Lead      | 7439-92-1 | <0.2     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Antimony  | 7440-36-0 | <1.1     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| BLANK           | Selenium  | 7782-49-2 | <0.4     | n/a      | ug/L    | 04/05/05      |             | U           |    |
| BLANK           | Uranium   | 7440-61-1 | <0.1     | n/a      | ug/L    | 03/30/05      |             | U           |    |
| LCS             | Silver    | 7440-22-4 | 137.6    | 105.846  | % Recov | 03/30/05      | 110.000     | 170.000     | *  |
| LCS             | Arsenic   | 7440-38-2 | 191.9    | 119.193  | % Recov | 04/05/05      | 82.000      | 142.000     |    |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

SAF Number: F03-025

Matrix: SOLID

Sample Date:

Test: ICP-2008 MS All possible metal

Receive Date:

| QC Type | Analyte   | CAS #     | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|-----------|-----------|----------|----------|---------|---------------|-------------|-------------|----|
| LCS     | Barium    | 7440-39-3 | 239.6    | 95.079   | % Recov | 03/30/05      | 79.000      | 123.000     |    |
| LCS     | Beryllium | 7440-41-7 | 97.18    | 102.924  | % Recov | 03/30/05      | 82.000      | 128.000     |    |
| LCS     | Cadmium   | 7440-43-9 | 137.7    | 107.578  | % Recov | 03/30/05      | 88.000      | 127.000     |    |
| LCS     | Chromium  | 7440-47-3 | 65.19    | 93.799   | % Recov | 03/30/05      | 50.000      | 126.000     |    |
| LCS     | Copper    | 7440-50-8 | 147.3    | 99.527   | % Recov | 03/30/05      | 61.000      | 134.000     |    |
| LCS     | Mercury   | 7439-97-6 | 17.62    | 104.260  | % Recov | 03/30/05      | 75.000      | 114.000     |    |
| LCS     | Nickel    | 7440-02-0 | 154.3    | 104.966  | % Recov | 03/30/05      | 84.000      | 125.000     |    |
| LCS     | Lead      | 7439-92-1 | 149.2    | 105.070  | % Recov | 03/30/05      | 87.000      | 120.000     |    |
| LCS     | Antimony  | 7440-36-0 | 104.9    | 172.250  | % Recov | 03/30/05      | 61.000      | 135.000     | *  |
| LCS     | Selenium  | 7782-49-2 | 75.4     | 117.445  | % Recov | 04/05/05      | 83.000      | 145.000     |    |
| LCS     | Uranium   | 7440-61-1 | 384.2    | 96.050   | % Recov | 03/30/05      | 89.000      | 107.000     |    |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: pH Soil and Waste Measurement

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|     |                               |    |       |       |     |          |       |       |  |
|-----|-------------------------------|----|-------|-------|-----|----------|-------|-------|--|
| DUP | pH Soil and Waste Measurement | PH | 9.344 | 0.874 | RPO | 03/23/05 | 0.000 | 3.000 |  |
|-----|-------------------------------|----|-------|-------|-----|----------|-------|-------|--|

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:**  
**Project:**

Steve Trent  
F03-025: F03-025

**Group #:** WSCF20050622

| Sample #       | Client ID | CAS # | Test Performed | Matrix      | WSCF Method                 | RQ   | Result     | Unit | DF         | MDL   | Analyze Sample Receive |
|----------------|-----------|-------|----------------|-------------|-----------------------------|------|------------|------|------------|-------|------------------------|
| <b>Organic</b> |           |       |                |             |                             |      |            |      |            |       |                        |
| W050001015     | B19411    | GRP   | TRENT          | 107-21-1    | Ethylene glycol             | SOIL | Organics   | U    | < 5.00e+03 | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | TPHGASOLINE | Total Pet. Hydrocarbons Gas | SOIL | LA-523-443 | U    | < 250      | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 12674-11-2  | Aroclor-1016                | SOIL | LA-523-427 | U    | < 51.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 11104-28-2  | Aroclor-1221                | SOIL | LA-523-427 | U    | < 100      | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 11141-16-5  | Aroclor-1232                | SOIL | LA-523-427 | U    | < 51.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 53469-21-9  | Aroclor-1242                | SOIL | LA-523-427 | U    | < 51.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 12672-29-6  | Aroclor-1248                | SOIL | LA-523-427 | U    | < 51.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 11097-69-1  | Aroclor-1254                | SOIL | LA-523-427 | U    | < 51.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 11096-82-5  | Aroclor-1260                | SOIL | LA-523-427 | U    | < 51.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 37324-23-5  | Aroclor-1262                | SOIL | LA-523-427 | U    | < 51.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 11100-14-4  | Aroclor-1268                | SOIL | LA-523-427 | U    | < 51.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 100-02-7    | 4-Nitrophenol               | SOIL | LA-523-456 | U    | < 150      | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 106-46-7    | 1,4-Dichlorobenzene         | SOIL | LA-523-456 | U    | < 140      | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 108-95-2    | Phenol                      | SOIL | LA-523-456 | U    | < 86.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 120-82-1    | 1,2,4-Trichlorobenzene      | SOIL | LA-523-456 | U    | < 83.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 121-14-2    | 2,4-Dinitrotoluene          | SOIL | LA-523-456 | U    | < 62.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 129-00-0    | Pyrene                      | SOIL | LA-523-456 | U    | < 50.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 59-50-7     | 4-Chloro-3-methylphenol     | SOIL | LA-523-456 | U    | < 75.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 621-64-7    | N-Nitrosodi-n-dipropylamine | SOIL | LA-523-456 | U    | < 72.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 83-32-9     | Acenaphthene                | SOIL | LA-523-456 | U    | < 55.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 87-86-5     | Pentachlorophenol           | SOIL | LA-523-456 | U    | < 73.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 95-57-8     | 2-Chlorophenol              | SOIL | LA-523-456 | U    | < 120      | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 95-48-7     | 2-Methylphenol (cresol, o-) | SOIL | LA-523-456 | U    | < 88.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 65794-96-9  | 3 & 4 Methylphenol Total    | SOIL | LA-523-456 | U    | < 160      | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 126-73-8    | Tributyl phosphate          | SOIL | LA-523-456 | U    | < 33.0     | ug/kg | 1.00                   |
| W050001015     | B19411    | GRP   | TRENT          | 75-35-4     | 1,1-Dichloroethene          | SOIL | LA-523-455 | U    | < 2.00     | ug/kg | 1.00                   |

**MDL = Minimum Detection Limit**

U - Analyzed for but not detected above limiting criteria.

**RQ = Result Qualifier**

**DF = Dilution Factor**

\* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

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# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent  
**Project:** F03-025: F03-025

**Group #:** WSCF20050622

| Sample #   | Client ID | CAS # | Test Performed | Matrix     | WSCF                      |      | Unit       | DF | MDL    | Analyze Sample | Receive |     |                            |
|------------|-----------|-------|----------------|------------|---------------------------|------|------------|----|--------|----------------|---------|-----|----------------------------|
|            |           |       |                |            | Method                    | RQ   |            |    |        |                |         |     |                            |
| W050001015 | B19411    | GRP   | TRENT          | 79-01-6    | Trichloroethene           | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 71-43-2    | Benzene                   | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 108-88-3   | Toluene                   | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 108-90-7   | Chlorobenzene             | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 75-34-3    | 1,1-Dichloroethane        | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 100-41-4   | Ethylbenzene              | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 100-42-5   | Styrene                   | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 10061-01-5 | cis-1,3-Dichloropropene   | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 10061-02-6 | trans-1,3-Dichloropropene | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 107-06-2   | 1,2-Dichloroethane        | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 108-10-1   | 4-Methyl-2-Pentanone      | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 124-48-1   | Dibromochloromethane      | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 127-18-4   | Tetrachloroethene         | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 1330-20-7  | Xylenes (total)           | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 540-59-0   | 1,2-Dichloroethene(Total) | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 56-23-5    | Carbon tetrachloride      | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 591-78-6   | 2-Hexanone                | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 67-64-1    | Acetone                   | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 67-66-3    | Chloroform                | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 71-55-6    | 1,1,1-Trichloroethane     | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 74-83-9    | Bromomethane              | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 74-87-3    | Chloromethane             | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 75-00-3    | Chloroethane              | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 75-01-4    | Vinyl chloride            | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 75-09-2    | Methylenechloride         | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 75-15-0    | Carbon disulfide          | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 75-25-2    | Bromoform                 | SOIL | LA-523-455 | U  | < 2.00 | ug/kg          | 1.00    | 2.0 | 04/01/05 03/18/05 03/18/05 |

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# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:  
Project:**

Steve Trent  
F03-025: F03-025

**Group #:** WSCF20050622

| Sample #   | Client ID | CAS # | Test Performed | Matrix      | WSCF                           |      | Result     | Unit | DF         | MDL   | Analyze Sample | Receive |                            |
|------------|-----------|-------|----------------|-------------|--------------------------------|------|------------|------|------------|-------|----------------|---------|----------------------------|
|            |           |       |                |             | Method                         | RQ   |            |      |            |       |                |         |                            |
| W050001015 | B19411    | GRP   | TRENT          | 75-27-4     | Bromodichloromethane           | SOIL | LA-523-455 | U    | < 2.00     | ug/kg | 1.00           | 2.0     | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 78-87-5     | 1,2-Dichloropropane            | SOIL | LA-523-455 | U    | < 2.00     | ug/kg | 1.00           | 2.0     | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 78-93-3     | 2-Butanone                     | SOIL | LA-523-455 | U    | < 2.00     | ug/kg | 1.00           | 2.0     | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 79-00-5     | 1,1,2-Trichloroethane          | SOIL | LA-523-455 | U    | < 2.00     | ug/kg | 1.00           | 2.0     | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 79-34-5     | 1,1,2,2-Tetrachloroethane      | SOIL | LA-523-455 | U    | < 2.00     | ug/kg | 1.00           | 2.0     | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 71-36-3     | 1-Butanol                      | SOIL | LA-523-455 | U    | < 41.0     | ug/kg | 1.00           | 41      | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | 104-51-8    | n-Butylbenzene                 | SOIL | LA-523-455 | U    | < 2.00     | ug/kg | 1.00           | 2.0     | 04/01/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | TPHDIESEL   | Total Pet. Hydrocarbons Diesel | SOIL | NWTPH      | U    | < 3.80e+03 | ug/kg | 1.00           | 3.8e+03 | 04/04/05 03/18/05 03/18/05 |
| W050001015 | B19411    | GRP   | TRENT          | TPHKEROSENE | Kerosene                       | SOIL | NWTPH      | U    | < 3.80e+03 | ug/kg | 1.00           | 3.8e+03 | 04/04/05 03/18/05 03/18/05 |

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**RQ = Result Qualifier**

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\* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

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# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: Alcohols, Glycols - 8015

SAF Number: F03-025  
 Sample Date: 03/18/05  
 Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

**Lab ID: W050001015**  
**BATCH QC ASSOCIATED WITH SAMPLE**

|         |                 |          |         |         |         |          |        |         |   |
|---------|-----------------|----------|---------|---------|---------|----------|--------|---------|---|
| DUP     | 2-Bromoethanol  | 540-51-2 | 12100   | 25.899  | rpD     | 04/01/05 | 0.000  | 25.000  | * |
| DUP     | Ethylene glycol | 107-21-1 | <5000   | n/a     | RPD     | 04/01/05 | 0.000  | 25.000  | U |
| MS      | 2-Bromoethanol  | 540-51-2 | 12500   | 79.618  | % Recov | 04/01/05 | 70.000 | 125.000 |   |
| MS      | Ethylene glycol | 107-21-1 | 12500   | 79.618  | % Recov | 04/01/05 | 75.000 | 125.000 |   |
| MSD     | 2-Bromoethanol  | 540-51-2 | 13400   | 85.350  | % Recov | 04/01/05 | 70.000 | 125.000 |   |
| MSD     | Ethylene glycol | 107-21-1 | 19000   | 121.019 | % Recov | 04/01/05 | 75.000 | 125.000 |   |
| SPK-RPD | 2-Bromoethanol  | 540-51-2 | 85.350  | 6.949   | RPD     | 04/01/05 | 0.000  | 20.000  |   |
| SPK-RPD | Ethylene glycol | 107-21-1 | 121.019 | 41.270  | RPD     | 04/01/05 | 0.000  | 20.000  | * |

**BATCH QC**

|       |                 |          |       |         |         |          |        |         |   |
|-------|-----------------|----------|-------|---------|---------|----------|--------|---------|---|
| BLANK | 2-Bromoethanol  | 540-51-2 | 14200 | 0.887   | ug/Kg   | 04/01/05 | 0.000  | 10.000  |   |
| BLANK | Ethylene glycol | 107-21-1 | <5000 | n/a     | ug/Kg   | 04/01/05 | 0.000  | 5.000   | U |
| LCS   | 2-Bromoethanol  | 540-51-2 | 17000 | 106.250 | % Recov | 04/01/05 | 70.000 | 130.000 |   |
| LCS   | Ethylene glycol | 107-21-1 | 15000 | 93.750  | % Recov | 04/01/05 | 70.000 | 130.000 |   |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: PCBs complete list

SAF Number: F03-025  
 Sample Date: 03/18/05  
 Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

**Lab ID: W050001015**  
**BATCH QC ASSOCIATED WITH SAMPLE**

|         |                      |            |         |         |         |          |        |         |  |
|---------|----------------------|------------|---------|---------|---------|----------|--------|---------|--|
| MS      | Aroclor-1260         | 11096-82-5 | 1004.3  | 98.700  | % Recov | 03/28/05 | 75.000 | 125.000 |  |
| MS      | Decachlorobiphenyl   | 2051-24-3  | 951.74  | 93.500  | % Recov | 03/28/05 | 50.000 | 150.000 |  |
| MS      | Tetrachloro-m-xylene | 877-09-8   | 938.16  | 92.200  | % Recov | 03/28/05 | 50.000 | 150.000 |  |
| MSD     | Aroclor-1260         | 11096-82-5 | 1094.1  | 108.000 | % Recov | 03/28/05 | 75.000 | 125.000 |  |
| MSD     | Decachlorobiphenyl   | 2051-24-3  | 1030.0  | 102.000 | % Recov | 03/28/05 | 50.000 | 150.000 |  |
| MSD     | Tetrachloro-m-xylene | 877-09-8   | 996.01  | 98.500  | % Recov | 03/28/05 | 50.000 | 150.000 |  |
| SPK-RPD | Aroclor-1260         | 11096-82-5 | 108.000 | 8.999   | RPD     | 03/28/05 | 0.000  | 25.000  |  |
| SPK-RPD | Decachlorobiphenyl   | 2051-24-3  | 102.000 | 8.696   | RPD     | 03/28/05 | 0.000  | 20.000  |  |
| SPK-RPD | Tetrachloro-m-xylene | 877-09-8   | 98.500  | 8.607   | RPD     | 03/28/05 | 0.000  | 20.000  |  |
| SURR    | Decachlorobiphenyl   | 2051-24-3  | 1021.5  | 101.000 | % Recov | 03/24/05 | 50.000 | 150.000 |  |
| SURR    | Tetrachloro-m-xylene | 877-09-8   | 1025.7  | 101.000 | % Recov | 03/24/05 | 50.000 | 150.000 |  |

**BATCH QC**

|       |                      |            |        |         |         |          |        |         |  |
|-------|----------------------|------------|--------|---------|---------|----------|--------|---------|--|
| BLANK | Aroclor-1016         | 12674-11-2 | < 50   | n/a     | UGKG    | 03/24/05 |        | U       |  |
| BLANK | Aroclor-1221         | 11104-28-2 | < 100  | n/a     | ug/Kg   | 03/24/05 |        | U       |  |
| BLANK | Aroclor-1232         | 11141-16-5 | < 50   | n/a     | ug/Kg   | 03/24/05 |        | U       |  |
| BLANK | Aroclor-1242         | 53469-21-9 | < 50   | n/a     | ug/Kg   | 03/24/05 |        | U       |  |
| BLANK | Aroclor-1248         | 12672-29-6 | < 50   | n/a     | ug/Kg   | 03/24/05 |        | U       |  |
| BLANK | Aroclor-1254         | 11097-69-1 | < 50   | n/a     | ug/Kg   | 03/24/05 |        | U       |  |
| BLANK | Aroclor-1260         | 11096-82-5 | < 50   | n/a     | ug/Kg   | 03/24/05 |        | U       |  |
| BLANK | Aroclor-1262         | 37324-23-5 | < 50   | n/a     | ug/Kg   | 03/24/05 |        | U       |  |
| BLANK | Aroclor-1268         | 11100-14-4 | < 50   | n/a     | ug/Kg   | 03/24/05 |        | U       |  |
| BLANK | Decachlorobiphenyl   | 2051-24-3  | 1005.2 | 101.000 | % Recov | 03/24/05 | 50.000 | 150.000 |  |
| BLANK | Tetrachloro-m-xylene | 877-09-8   | 1026.2 | 103.000 | % Recov | 03/24/05 | 50.000 | 150.000 |  |
| LCS   | Aroclor-1260         | 11096-82-5 | 1086.1 | 109.000 | % Recov | 03/24/05 | 70.000 | 130.000 |  |
| LCS   | Decachlorobiphenyl   | 2051-24-3  | 1021.9 | 102.000 | % Recov | 03/24/05 | 50.000 | 150.000 |  |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
Matrix: SOLID  
Test: PCBs complete list

SAF Number: F03-025  
Sample Date:  
Receive Date:

| QC Type | Analyte              | CAS #    | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|----------------------|----------|----------|----------|---------|---------------|-------------|-------------|----|
| LCS     | Tetrachloro-m-xylene | 877-09-8 | 985.13   | 98.500   | % Recov | 03/24/05      | 50.000      | 150.000     |    |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025  
 Sample Date: 03/18/05  
 Receive Date: 03/18/05

| QC Type                                | Analyte                     | CAS #      | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|--|-----------------------------|------------|----------|----------|---------|---------------|-------------|-------------|----|
| <b>Lab ID: W050001015</b>              |                             |            |          |          |         |               |             |             |    |
| <b>BATCH QC ASSOCIATED WITH SAMPLE</b> |                             |            |          |          |         |               |             |             |    |
| SURR                                   | 2-Fluorophenol              | 367-12-4   | 1132.1   | 83.400   | % Recov | 04/06/05      | 42.000      | 105.000     |    |
| SURR                                   | 2-Fluorobiphenyl            | 321-60-8   | 1117.4   | 82.300   | % Recov | 04/06/05      | 56.000      | 122.000     |    |
| SURR                                   | Nitrobenzene-d5             | 4165-60-0  | 1104.7   | 81.400   | % Recov | 04/06/05      | 64.000      | 111.000     |    |
| SURR                                   | Phenol-d5                   | 4165-62-2  | 1157.3   | 85.200   | % Recov | 04/06/05      | 54.000      | 120.000     |    |
| SURR                                   | 2,4,6-Tribromophenol        | 118-79-8   | 1119.0   | 82.400   | % Recov | 04/06/05      | 24.000      | 122.000     |    |
| SURR                                   | Terphenyl-d14 (7Cl)         | 98904-43-9 | 959.86   | 70.700   | % Recov | 04/06/05      | 35.000      | 150.000     |    |
| <b>Lab ID: W050001051</b>              |                             |            |          |          |         |               |             |             |    |
| <b>BATCH QC ASSOCIATED WITH SAMPLE</b> |                             |            |          |          |         |               |             |             |    |
| MS                                     | 1,2,4-Trichlorobenzene      | 120-82-1   | 1114.8   | 81.000   | % Recov | 04/06/05      | 46.000      | 107.000     |    |
| MS                                     | 1,4-Dichlorobenzene         | 106-46-7   | 1103.1   | 80.200   | % Recov | 04/06/05      | 30.000      | 96.000      |    |
| MS                                     | 2,4-Dinitrotoluene          | 121-14-2   | 1108.9   | 80.600   | % Recov | 04/06/05      | 59.000      | 106.000     |    |
| MS                                     | 2-Fluorophenol              | 367-12-4   | 1178.6   | 85.600   | % Recov | 04/06/05      | 42.000      | 105.000     |    |
| MS                                     | Acenaphthene                | 83-32-9    | 1072.2   | 77.900   | % Recov | 04/06/05      | 61.000      | 116.000     |    |
| MS                                     | 4-Chloro-3-methylphenol     | 59-50-7    | 1942.0   | 94.100   | % Recov | 04/06/05      | 61.000      | 106.000     |    |
| MS                                     | 2-Chlorophenol              | 95-57-8    | 1586.1   | 78.800   | % Recov | 04/06/05      | 66.000      | 106.000     |    |
| MS                                     | N-Nitrosodi-n-dipropylamine | 621-64-7   | 1215.8   | 88.300   | % Recov | 04/06/05      | 71.000      | 114.000     |    |
| MS                                     | 2-Fluorobiphenyl            | 321-60-8   | 1145.4   | 83.200   | % Recov | 04/06/05      | 56.000      | 122.000     |    |
| MS                                     | Phenol                      | 108-95-2   | 1720.2   | 83.300   | % Recov | 04/06/05      | 42.000      | 111.000     |    |
| MS                                     | Nitrobenzene-d5             | 4165-60-0  | 1134.9   | 82.500   | % Recov | 04/06/05      | 64.000      | 111.000     |    |
| MS                                     | 4-Nitrophenol               | 100-02-7   | 1639.4   | 79.400   | % Recov | 04/06/05      | 32.000      | 118.000     |    |
| MS                                     | Pentachlorophenol           | 87-86-5    | 1576.9   | 76.400   | % Recov | 04/06/05      | 62.000      | 114.000     |    |
| MS                                     | Phenol-d5                   | 4165-62-2  | 1140.4   | 82.900   | % Recov | 04/06/05      | 54.000      | 120.000     |    |
| MS                                     | Pyrene                      | 129-00-0   | 1022.4   | 74.300   | % Recov | 04/06/05      | 66.000      | 118.000     |    |
| MS                                     | 2,4,6-Tribromophenol        | 118-79-8   | 1187.1   | 86.300   | % Recov | 04/06/05      | 24.000      | 122.000     |    |
| MS                                     | Terphenyl-d14 (7Cl)         | 98904-43-9 | 937.38   | 68.100   | % Recov | 04/06/05      | 35.000      | 150.000     |    |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025  
 Sample Date: 03/23/05  
 Receive Date: 03/23/05

| QC Type | Analyte                     | CAS #      | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|-----------------------------|------------|----------|----------|---------|---------------|-------------|-------------|----|
| MSD     | 1,2,4-Trichlorobenzene      | 120-82-1   | 1105.6   | 80.400   | % Recov | 04/06/05      | 46.000      | 107.000     |    |
| MSD     | 1,4-Dichlorobenzene         | 106-46-7   | 1052.3   | 78.500   | % Recov | 04/06/05      | 30.000      | 96.000      |    |
| MSD     | 2,4-Dinitrotoluene          | 121-14-2   | 1004.7   | 73.000   | % Recov | 04/06/05      | 59.000      | 106.000     |    |
| MSD     | 2-Fluorophenol              | 367-12-4   | 1130.5   | 82.200   | % Recov | 04/06/05      | 42.000      | 105.000     |    |
| MSD     | Acenaphthene                | 83-32-9    | 1065.0   | 77.400   | % Recov | 04/06/05      | 61.000      | 116.000     |    |
| MSD     | 4-Chloro-3-methylphenol     | 59-50-7    | 1917.2   | 92.900   | % Recov | 04/06/05      | 61.000      | 106.000     |    |
| MSD     | 2-Chlorophenol              | 95-57-8    | 1568.1   | 76.000   | % Recov | 04/06/05      | 66.000      | 106.000     |    |
| MSD     | N-Nitrosodi-n-dipropylamine | 621-64-7   | 1190.2   | 86.500   | % Recov | 04/06/05      | 71.000      | 114.000     |    |
| MSD     | 2-Fluorobiphenyl            | 321-60-8   | 1103.4   | 80.200   | % Recov | 04/06/05      | 56.000      | 122.000     |    |
| MSD     | Phenol                      | 108-95-2   | 1688.9   | 81.900   | % Recov | 04/06/05      | 42.000      | 111.000     |    |
| MSD     | Nitrobenzene-d5             | 4165-60-0  | 1062.8   | 77.300   | % Recov | 04/06/05      | 64.000      | 111.000     |    |
| MSD     | 4-Nitrophenol               | 100-02-7   | 1510.5   | 73.200   | % Recov | 04/06/05      | 32.000      | 118.000     |    |
| MSD     | Pentachlorophenol           | 87-86-5    | 1502.2   | 72.800   | % Recov | 04/06/05      | 62.000      | 114.000     |    |
| MSD     | Phenol-d5                   | 4165-62-2  | 1072.4   | 78.000   | % Recov | 04/06/05      | 54.000      | 120.000     |    |
| MSD     | Pyrene                      | 129-00-0   | 1009.6   | 73.400   | % Recov | 04/06/05      | 66.000      | 118.000     |    |
| MSD     | 2,4,6-Tribromophenol        | 118-79-6   | 1191.6   | 86.600   | % Recov | 04/06/05      | 24.000      | 122.000     |    |
| MSD     | Terphenyl-d14 (7Cl)         | 98904-43-9 | 923.28   | 67.100   | % Recov | 04/06/05      | 35.000      | 150.000     |    |
| SPK-RPD | 1,2,4-Trichlorobenzene      | 120-82-1   | 80.400   | 0.743    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | 1,4-Dichlorobenzene         | 106-46-7   | 76.500   | 4.722    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | 2,4-Dinitrotoluene          | 121-14-2   | 73.000   | 9.896    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | 2-Fluorophenol              | 367-12-4   | 82.200   | 4.052    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | Acenaphthene                | 83-32-9    | 77.400   | 0.644    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | 4-Chloro-3-methylphenol     | 59-50-7    | 92.900   | 1.283    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | 2-Chlorophenol              | 95-57-8    | 76.000   | 1.047    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | N-Nitrosodi-n-dipropylamine | 621-64-7   | 86.500   | 2.059    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | 2-Fluorobiphenyl            | 321-60-8   | 80.200   | 3.672    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | Phenol                      | 108-95-2   | 81.900   | 1.695    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | Nitrobenzene-d5             | 4165-60-0  | 77.300   | 6.508    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | 4-Nitrophenol               | 100-02-7   | 73.200   | 8.126    | RPD     | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | Pentachlorophenol           | 87-86-5    | 72.800   | 4.826    | RPD     | 04/06/05      | 0.000       | 20.000      |    |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025  
 Sample Date: 03/23/05  
 Receive Date: 03/23/05

| QC Type | Analyte              | CAS #      | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|----------------------|------------|----------|----------|-------|---------------|-------------|-------------|----|
| SPK-RPD | Phenol-d5            | 4165-62-2  | 78.000   | 6.091    | RPD   | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | Pyrene               | 129-00-0   | 73.400   | 1.219    | RPD   | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | 2,4,6-Tribromophenol | 118-79-6   | 86.600   | 0.347    | RPD   | 04/06/05      | 0.000       | 20.000      |    |
| SPK-RPD | Terphenyl-d14 (7Cl)  | 98904-43-9 | 67.100   | 1.479    | RPD   | 04/06/05      | 0.000       | 20.000      |    |

## BATCH QC

|       |                             |            |        |        |         |          |        |         |
|-------|-----------------------------|------------|--------|--------|---------|----------|--------|---------|
| BLANK | 1,2,4-Trichlorobenzene      | 120-82-1   | < 81   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | 1,4-Dichlorobenzene         | 106-46-7   | < 140  | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | 2,4-Dinitrotoluene          | 121-14-2   | < 61   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | 2-Fluorophenol              | 367-12-4   | 1042.2 | 78.200 | % Recov | 04/06/05 | 42.000 | 105.000 |
| BLANK | 2-Methylphenol (cresol, o-) | 95-48-7    | < 86   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | 3 & 4 Methylphenol Total    | 65794-96-9 | < 160  | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | Acenaphthene                | 83-32-9    | < 54   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | 4-Chloro-3-methylphenol     | 59-50-7    | < 73   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | 2-Chlorophenol              | 95-57-8    | < 120  | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | N-Nitrosodi-n-propylamine   | 621-64-7   | < 71   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | 2-Fluorobiphenyl            | 321-60-8   | 1110.8 | 83.300 | % Recov | 04/06/05 | 56.000 | 122.000 |
| BLANK | Phenol                      | 108-95-2   | < 85   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | Nitrobenzene-d5             | 4165-60-0  | 1067.3 | 80.000 | % Recov | 04/06/05 | 64.000 | 111.000 |
| BLANK | 4-Nitrophenol               | 100-02-7   | < 150  | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | Pentachlorophenol           | 87-86-5    | < 72   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | Phenol-d5                   | 4165-62-2  | 1087.1 | 81.500 | % Recov | 04/06/05 | 54.000 | 120.000 |
| BLANK | Pyrene                      | 129-00-0   | < 49   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | Tributyl phosphate          | 126-73-8   | < 32   | n/a    | ug/Kg   | 04/06/05 |        | U       |
| BLANK | 2,4,6-Tribromophenol        | 118-79-6   | 884.34 | 66.300 | % Recov | 04/06/05 | 24.000 | 122.000 |
| BLANK | Terphenyl-d14 (7Cl)         | 98904-43-9 | 912.63 | 68.400 | % Recov | 04/06/05 | 35.000 | 150.000 |
| LCS   | 1,2,4-Trichlorobenzene      | 120-82-1   | 1040.9 | 78.100 | % Recov | 04/06/05 | 46.000 | 107.000 |
| LCS   | 1,4-Dichlorobenzene         | 106-46-7   | 1031.4 | 77.400 | % Recov | 04/06/05 | 42.000 | 111.000 |
| LCS   | 2,4-Dinitrotoluene          | 121-14-2   | 996.52 | 74.700 | % Recov | 04/06/05 | 59.000 | 106.000 |
| LCS   | 2-Fluorophenol              | 367-12-4   | 1066.3 | 80.000 | % Recov | 04/06/05 | 50.000 | 110.000 |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-025  
 Sample Date:  
 Receive Date:

| QC Type | Analyte                   | CAS #      | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------------------------|------------|----------|----------|---------|---------------|-------------|-------------|----|
| LCS     | Acenaphthene              | 83-32-9    | 1000.8   | 75.100   | % Recov | 04/06/05      | 61.000      | 116.000     |    |
| LCS     | 4-Chloro-3-methylphenol   | 59-50-7    | 1737.5   | 88.900   | % Recov | 04/06/05      | 61.000      | 106.000     |    |
| LCS     | 2-Chlorophenol            | 95-57-8    | 1475.9   | 73.800   | % Recov | 04/06/05      | 66.000      | 106.000     |    |
| LCS     | N-Nitrosodi-n-propylamine | 621-64-7   | 1102.6   | 82.700   | % Recov | 04/06/05      | 71.000      | 114.000     |    |
| LCS     | 2-Fluorobiphenyl          | 321-60-8   | 1058.5   | 79.400   | % Recov | 04/06/05      | 58.000      | 109.000     |    |
| LCS     | Phenol                    | 108-95-2   | 1592.4   | 79.600   | % Recov | 04/06/05      | 67.000      | 105.000     |    |
| LCS     | Nitrobenzene-d5           | 4165-60-0  | 1047.2   | 78.500   | % Recov | 04/06/05      | 60.000      | 118.000     |    |
| LCS     | 4-Nitrophenol             | 100-02-7   | 1520.5   | 78.000   | % Recov | 04/06/05      | 32.000      | 118.000     |    |
| LCS     | Pentachlorophenol         | 87-86-5    | 1322.0   | 68.100   | % Recov | 04/06/05      | 62.000      | 114.000     |    |
| LCS     | Phenol-d5                 | 4165-62-2  | 1068.7   | 80.200   | % Recov | 04/06/05      | 59.000      | 116.000     |    |
| LCS     | Pyrene                    | 129-00-0   | 899.00   | 67.400   | % Recov | 04/06/05      | 66.000      | 118.000     |    |
| LCS     | 2,4,6-Tribromophenol      | 118-79-8   | 1037.9   | 77.800   | % Recov | 04/06/05      | 60.000      | 120.000     |    |
| LCS     | Terphenyl-d14 (7Cl)       | 98904-43-9 | 836.59   | 62.700   | % Recov | 04/06/05      | 60.000      | 120.000     |    |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|      |                 |      |         |       |        |         |          |        |         |
|------|-----------------|------|---------|-------|--------|---------|----------|--------|---------|
| SURR | ortho-Terphenyl | Surr | 84-15-1 | 23086 | 90.600 | % Recov | 04/04/05 | 70.000 | 130.000 |
|------|-----------------|------|---------|-------|--------|---------|----------|--------|---------|

Lab ID: W050001051

## BATCH QC ASSOCIATED WITH SAMPLE

|         |                 |             |         |        |         |          |          |         |         |
|---------|-----------------|-------------|---------|--------|---------|----------|----------|---------|---------|
| MS      | Kerosene        | TPHKEROSENE | 118390  | 91.600 | % Recov | 04/04/05 | 70.000   | 130.000 |         |
| MS      | ortho-Terphenyl | Surr        | 84-15-1 | 23623  | 91.300  | % Recov  | 04/04/05 | 70.000  | 130.000 |
| MSD     | Kerosene        | TPHKEROSENE | 115770  | 89.600 | % Recov | 04/04/05 | 70.000   | 130.000 |         |
| MSD     | ortho-Terphenyl | Surr        | 84-15-1 | 23200  | 89.800  | % Recov  | 04/04/05 | 70.000  | 130.000 |
| SPK-RPD | ortho-Terphenyl | Surr        | 84-15-1 | 89.800 | 1.657   | RPD      | 04/04/05 | 0.000   | 20.000  |

## BATCH QC

|       |                                |             |         |        |         |          |          |         |         |
|-------|--------------------------------|-------------|---------|--------|---------|----------|----------|---------|---------|
| BLANK | Kerosene                       | TPHKEROSENE | < 3800  | n/a    | ug/Kg   | 04/04/05 |          |         | U       |
| BLANK | ortho-Terphenyl                | Surr        | 84-15-1 | 21440  | 85.800  | % Recov  | 04/04/05 | 70.000  | 130.000 |
| BLANK | Total Pet. Hydrocarbons Diesel | TPHDIESEL   | < 3800  | n/a    | ug/Kg   | 04/04/05 |          |         | U       |
| LCS   | ortho-Terphenyl                | Surr        | 84-15-1 | 22336  | 89.300  | % Recov  | 04/04/05 | 70.000  | 130.000 |
| LCS   | Total Pet. Hydrocarbons Diesel | TPHDIESEL   | 108070  | 86.500 | % Recov | 04/04/05 | 80.000   | 120.000 |         |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: NWTPH-GX TPH Gasoline Range

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|         |                             |             |        |         |         |          |        |         |   |
|---------|-----------------------------|-------------|--------|---------|---------|----------|--------|---------|---|
| DUP     | Total Pet. Hydrocarbons Gas | TPHGASOLINE | <250   | n/a     | RPD     | 03/31/05 | 0.000  | 20.000  | U |
| MS      | Total Pet. Hydrocarbons Gas | TPHGASOLINE | 3600   | 102.857 | % Recov | 03/31/05 | 50.000 | 150.000 |   |
| MSD     | Total Pet. Hydrocarbons Gas | TPHGASOLINE | 3300   | 94.286  | % Recov | 03/31/05 | 50.000 | 150.000 |   |
| SPK-RPD | Total Pet. Hydrocarbons Gas | TPHGASOLINE | 94.286 | 8.895   | RPD     | 03/31/05 | 0.000  | 20.000  |   |

## BATCH QC

|       |                             |             |      |         |         |          |        |         |   |
|-------|-----------------------------|-------------|------|---------|---------|----------|--------|---------|---|
| BLANK | Total Pet. Hydrocarbons Gas | TPHGASOLINE | <250 | n/a     | mg/L    | 03/31/05 | 0.000  | 300.000 | U |
| LCS   | Total Pet. Hydrocarbons Gas | TPHGASOLINE | 3900 | 113.043 | % Recov | 03/31/05 | 85.000 | 115.000 |   |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type                                | Analyte               | CAS #      | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|--|-----------------------|------------|----------|----------|---------|---------------|-------------|-------------|----|
| <b>Lab ID: W050001015</b>              |                       |            |          |          |         |               |             |             |    |
| <b>BATCH QC ASSOCIATED WITH SAMPLE</b> |                       |            |          |          |         |               |             |             |    |
| MS                                     | 1,1-Dichloroethene    | 75-35-4    | 24.820   | 99.300   | % Recov | 04/01/05      | 63.000      | 117.000     |    |
| MS                                     | Benzene               | 71-43-2    | 22.650   | 90.600   | % Recov | 04/01/05      | 75.000      | 129.000     |    |
| MS                                     | 4-Bromofluorobenzene  | 460-00-4   | 52.380   | 105.000  | % Recov | 04/01/05      | 84.000      | 118.000     |    |
| MS                                     | Chlorobenzene         | 108-90-7   | 24.740   | 99.000   | % Recov | 04/01/05      | 79.000      | 119.000     |    |
| MS                                     | 1,2-Dichloroethane-d4 | 17060-07-0 | 48.880   | 97.700   | % Recov | 04/01/05      | 82.000      | 136.000     |    |
| MS                                     | Toluene-d8            | 2037-26-5  | 51.680   | 103.000  | % Recov | 04/01/05      | 89.000      | 119.000     |    |
| MS                                     | Toluene               | 108-88-3   | 24.450   | 97.800   | % Recov | 04/01/05      | 78.000      | 120.000     |    |
| MS                                     | Trichloroethene       | 79-01-6    | 23.450   | 93.800   | % Recov | 04/01/05      | 73.000      | 123.000     |    |
| MSD                                    | 1,1-Dichloroethene    | 75-35-4    | 25.720   | 103.000  | % Recov | 04/01/05      | 63.000      | 117.000     |    |
| MSD                                    | Benzene               | 71-43-2    | 23.720   | 94.900   | % Recov | 04/01/05      | 75.000      | 129.000     |    |
| MSD                                    | 4-Bromofluorobenzene  | 460-00-4   | 51.730   | 103.000  | % Recov | 04/01/05      | 84.000      | 118.000     |    |
| MSD                                    | Chlorobenzene         | 108-90-7   | 24.830   | 99.300   | % Recov | 04/01/05      | 79.000      | 119.000     |    |
| MSD                                    | 1,2-Dichloroethane-d4 | 17060-07-0 | 49.800   | 99.600   | % Recov | 04/01/05      | 82.000      | 136.000     |    |
| MSD                                    | Toluene-d8            | 2037-26-5  | 52.290   | 105.000  | % Recov | 04/01/05      | 89.000      | 119.000     |    |
| MSD                                    | Toluene               | 108-88-3   | 25.400   | 102.000  | % Recov | 04/01/05      | 76.000      | 120.000     |    |
| MSD                                    | Trichloroethene       | 79-01-6    | 24.130   | 96.500   | % Recov | 04/01/05      | 73.000      | 123.000     |    |
| SPK-RPD                                | 1,1-Dichloroethene    | 75-35-4    | 103.000  | 3.658    | RPD     | 04/01/05      | 0.000       | 25.000      |    |
| SPK-RPD                                | Benzene               | 71-43-2    | 94.900   | 4.636    | RPD     | 04/01/05      | 0.000       | 25.000      |    |
| SPK-RPD                                | 4-Bromofluorobenzene  | 460-00-4   | 103.000  | 1.923    | RPD     | 04/01/05      | 0.000       | 25.000      |    |
| SPK-RPD                                | Chlorobenzene         | 108-90-7   | 99.300   | 0.303    | RPD     | 04/01/05      | 0.000       | 25.000      |    |
| SPK-RPD                                | 1,2-Dichloroethane-d4 | 17060-07-0 | 99.600   | 1.926    | RPD     | 04/01/05      | 0.000       | 25.000      |    |
| SPK-RPD                                | Toluene-d8            | 2037-26-5  | 105.000  | 1.923    | RPD     | 04/01/05      | 0.000       | 25.000      |    |
| SPK-RPD                                | Toluene               | 108-88-3   | 102.000  | 4.204    | RPD     | 04/01/05      | 0.000       | 25.000      |    |
| SPK-RPD                                | Trichloroethene       | 79-01-6    | 96.500   | 2.838    | RPD     | 04/01/05      | 0.000       | 25.000      |    |
| SURR                                   | 4-Bromofluorobenzene  | 460-00-4   | 51.530   | 103.000  | % Recov | 04/01/05      | 71.000      | 125.000     |    |
| SURR                                   | 1,2-Dichloroethane-d4 | 17060-07-0 | 48.640   | 97.300   | % Recov | 04/01/05      | 80.000      | 134.000     |    |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type         | Analyte                   | CAS #      | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|-----------------|---------------------------|------------|----------|----------|---------|---------------|-------------|-------------|----|
| SURR            | Toluene-d8                | 2037-26-5  | 51.910   | 104.000  | % Recov | 04/01/05      | 80.000      | 126.000     |    |
| <b>BATCH QC</b> |                           |            |          |          |         |               |             |             |    |
| BLANK           | 1,1-Dichloroethane        | 75-34-3    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 1,1,1-Trichloroethane     | 71-55-6    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 1,1,2-Trichloroethane     | 79-00-5    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 1,1,2,2-Tetrachloroethane | 79-34-5    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 1,1-Dichloroethene        | 75-35-4    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 1,2-Dichloroethane        | 107-06-2   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 1,2-Dichloroethene(Total) | 540-59-0   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 1-Butanol                 | 71-36-3    | < 40     | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 2-Hexanone                | 591-78-6   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 4-Methyl-2-Pentanone      | 108-10-1   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Acetone                   | 67-64-1    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Bromodichloromethane      | 75-27-4    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Benzene                   | 71-43-2    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 4-Bromofluorobenzene      | 460-00-4   | 51.710   | 103.000  | % Recov | 04/01/05      | 71.000      | 125.000     |    |
| BLANK           | Bromoform                 | 75-25-2    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | n-Butylbenzene            | 104-51-8   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Carbon disulfide          | 75-15-0    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Carbon tetrachloride      | 56-23-5    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Dibromochloromethane      | 124-48-1   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Chloroform                | 67-66-3    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Chlorobenzene             | 108-90-7   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | cis-1,3-Dichloropropene   | 10061-01-5 | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Chloroethane              | 75-00-3    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | 1,2-Dichloroethane-d4     | 17060-07-0 | 48.770   | 97.500   | % Recov | 04/01/05      | 80.000      | 134.000     |    |
| BLANK           | 1,2-Dichloropropane       | 78-87-5    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Ethylbenzene              | 100-41-4   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK           | Bromomethane              | 74-83-9    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F03-025

Sample Date:

Receive Date:

| QC Type | Analyte                   | CAS #      | QC Found | QC Yield | Units   | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------------------------|------------|----------|----------|---------|---------------|-------------|-------------|----|
| BLANK   | Chloromethane             | 74-87-3    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | 2-Butanone                | 78-93-3    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | Methylenechloride         | 75-09-2    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | Tetrachloroethene         | 127-18-4   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | Styrene                   | 100-42-5   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | Xylenes (total)           | 1330-20-7  | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | Toluene-d8                | 2037-26-5  | 51.320   | 103.000  | % Recov | 04/01/05      | 80.000      | 126.000     |    |
| BLANK   | Toluene                   | 108-88-3   | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | trans-1,3-Dichloropropene | 10061-02-6 | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | Trichloroethene           | 79-01-6    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| BLANK   | Vinyl chloride            | 75-01-4    | < 2.0    | n/a      | ug/Kg   | 04/01/05      |             |             | U  |
| LCS     | 1,1-Dichloroethene        | 75-35-4    | 22.180   | 88.700   | % Recov | 04/01/05      | 70.000      | 130.000     |    |
| LCS     | Benzene                   | 71-43-2    | 24.380   | 97.600   | % Recov | 04/01/05      | 70.000      | 130.000     |    |
| LCS     | 4-Bromofluorobenzene      | 460-00-4   | 52.920   | 108.000  | % Recov | 04/01/05      | 71.000      | 125.000     |    |
| LCS     | Chlorobenzene             | 108-90-7   | 24.500   | 98.000   | % Recov | 04/01/05      | 70.000      | 130.000     |    |
| LCS     | 1,2-Dichloroethane-d4     | 17060-07-0 | 50.770   | 102.000  | % Recov | 04/01/05      | 80.000      | 134.000     |    |
| LCS     | Toluene-d8                | 2037-26-5  | 53.420   | 107.000  | % Recov | 04/01/05      | 80.000      | 128.000     |    |
| LCS     | Toluene                   | 108-88-3   | 25.260   | 101.000  | % Recov | 04/01/05      | 70.000      | 130.000     |    |
| LCS     | Trichloroethene           | 79-01-6    | 23.710   | 94.800   | % Recov | 04/01/05      | 70.000      | 130.000     |    |

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent      **Group #:** WSCF20050622  
**Project:** F03-025: F03-025

| Sample #              | Client ID | CAS # | Test Performed | Matrix     | WSCF Method                    | RQ   | Result     | Unit | DF        | MDL   | Analyze Sample | Receive |
|-----------------------|-----------|-------|----------------|------------|--------------------------------|------|------------|------|-----------|-------|----------------|---------|
| <b>Radiochemistry</b> |           |       |                |            |                                |      |            |      |           |       |                |         |
| W050001015            | B19411    | GRP   | TRENT          | 14596-10-2 | Americium-241                  | SOIL | LA-508-471 |      | 0.120     | pCi/g | 1.00           | 0.038   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Am-241 by AEA Total Cntg Error | SOIL | LA-508-471 | +-   | 0.046     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | 10198-40-0 | Cobalt-60                      | SOIL | LA-508-481 |      | 0.0171    | pCi/g | 1.00           | 0.010   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Co-60 Rel. Count Error (GEA)   | SOIL | LA-508-481 | +-   | 8.8e-03   | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | 10045-97-3 | Cesium-137                     | SOIL | LA-508-481 | U    | -4.60e-04 | pCi/g | 1.00           | 0.010   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Cs-137 Rel. Count Error (GEA)  | SOIL | LA-508-481 | +-   | 4.6e-03   | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | 14683-23-9 | Europium-152                   | SOIL | LA-508-481 | U    | -0.0113   | pCi/g | 1.00           | 0.030   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Eu-152 Rel. Count Error (GEA)  | SOIL | LA-508-481 | +-   | 0.021     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | 15585-10-1 | Europium-154                   | SOIL | LA-508-481 | U    | 0.0116    | pCi/g | 1.00           | 0.034   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Eu-154 Rel. Count Error (GEA)  | SOIL | LA-508-481 | +-   | 0.023     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | 14391-16-3 | Europium-155                   | SOIL | LA-508-481 |      | 0.0384    | pCi/g | 1.00           | 0.042   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Eu-155 Rel. Count Error (GEA)  | SOIL | LA-508-481 | +-   | 0.037     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | 13994-20-2 | Neptunium-237                  | SOIL | LA-508-471 | U    | 6.90e-03  | pCi/g | 1.00           | 0.012   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Np-237 by AEA Total Cntg Error | SOIL | LA-508-471 | +-   | 0.069     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | 13981-16-3 | Plutonium-238                  | SOIL | LA-508-471 | U    | -7.50e-03 | pCi/g | 1.00           | 0.068   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Pu-238 by AEA Total Cntg Error | SOIL | LA-508-471 | +-   | 0.038     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | PU-239/240 | Pu-239/240 by AEA              | SOIL | LA-508-471 |      | 0.0320    | pCi/g | 1.00           | 0.014   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | Pu-239/240 AEA Total Cntg Err  | SOIL | LA-508-471 | +-   | 0.018     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | U-233/234  | Uranium-233/234                | SOIL | LA-508-471 |      | 0.210     | pCi/g | 1.00           | 4.9e-03 |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | U-233/234 AEA Total Cntg Err   | SOIL | LA-508-471 | +-   | 0.067     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | 15117-98-1 | Uranium-235                    | SOIL | LA-508-471 |      | 0.0530    | pCi/g | 1.00           | 5.3e-03 |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | U-235 by AEA Total Cntg Error  | SOIL | LA-508-471 | +-   | 0.024     | pCi/g | 1.00           | 0.0     |
| W050001015            | B19411    | GRP   | TRENT          | U-238      | Uranium-238                    | SOIL | LA-508-471 |      | 0.160     | pCi/g | 1.00           | 0.013   |
| W050001015            | B19411    | GRP   | TRENT          | E,T,C      | U-238 by AEA Total Cntg Error  | SOIL | LA-508-471 | +-   | 0.053     | pCi/g | 1.00           | 0.10    |

**MDL=Minimum Detection Limit**

U - Analyzed for but not detected above limiting criteria.

**RQ=Result Qualifier**

**DF=Dilution Factor**

\* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

**Report WGPP/ver. 1.1**

**Groundwater Remediation Program**

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: Gamma Energy Analysis-grd H<sub>2</sub>O

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|     |              |            |           |        |     |          |       |        |  |
|-----|--------------|------------|-----------|--------|-----|----------|-------|--------|--|
| DUP | Cobalt-60    | 10198-40-0 | 1.46e-02  | 15.773 | RPD | 03/21/05 | 0.000 | 20.000 |  |
| DUP | Cesium-137   | 10045-97-3 | U4.64e-04 | n/a    | RPD | 03/21/05 | 0.000 | 20.000 |  |
| DUP | Europium-152 | 14683-23-9 | U8.97e-03 | n/a    | RPD | 03/21/05 | 0.000 | 20.000 |  |
| DUP | Europium-154 | 15585-10-1 | U2.62e-02 | n/a    | RPD | 03/21/05 | 0.000 | 20.000 |  |
| DUP | Europium-155 | 14391-16-3 | U3.54e-02 | n/a    | RPD | 03/21/05 | 0.000 | 20.000 |  |

## BATCH QC

|       |              |            |           |         |         |          |         |          |  |
|-------|--------------|------------|-----------|---------|---------|----------|---------|----------|--|
| BLANK | Cobalt-60    | 10198-40-0 | U9.02e-4  | n/a     | pCi/g   | 03/21/05 | -10.000 | 1000.000 |  |
| BLANK | Cesium-137   | 10045-97-3 | U2.90e-5  | n/a     | pCi/g   | 03/21/05 | -10.000 | 1000.000 |  |
| BLANK | Europium-152 | 14683-23-9 | U1.63e-02 | n/a     | pCi/g   | 03/21/05 | -10.000 | 1000.000 |  |
| BLANK | Europium-154 | 15585-10-1 | U-1.6e-3  | n/a     | pCi/g   | 03/21/05 | -10.000 | 1000.000 |  |
| BLANK | Europium-155 | 14391-16-3 | U1.13e-2  | n/a     | pCi/g   | 03/21/05 | -10.000 | 1000.000 |  |
| LCS   | Cobalt-60    | 10198-40-0 | 4.39e+03  | 104.773 | % Recov | 03/22/05 | 80.000  | 120.000  |  |
| LCS   | Cesium-137   | 10045-97-3 | 3.93e+03  | 109.777 | % Recov | 03/22/05 | 80.000  | 120.000  |  |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: Americium by AEA

SAF Number: F03-025  
 Sample Date: 03/18/05  
 Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

**Lab ID: W050001015**  
**BATCH QC ASSOCIATED WITH SAMPLE**

|     |               |            |         |        |     |          |       |        |  |
|-----|---------------|------------|---------|--------|-----|----------|-------|--------|--|
| DUP | Americium-241 | 14596-10-2 | 9.9e-02 | 19.178 | RPD | 04/18/05 | 0.000 | 20.000 |  |
|-----|---------------|------------|---------|--------|-----|----------|-------|--------|--|

**BATCH QC**

|       |               |            |          |        |         |          |         |          |  |
|-------|---------------|------------|----------|--------|---------|----------|---------|----------|--|
| BLANK | Americium-241 | 14596-10-2 | U8.4e-03 | n/a    | pCi/g   | 04/13/05 | -10.000 | 1000.000 |  |
| LCS   | Americium-241 | 14596-10-2 | 4.3e +01 | 89.397 | % Recov | 04/13/05 | 75.000  | 125.000  |  |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: Neptunium by AEA

SAF Number: F03-025  
 Sample Date: 03/17/05  
 Receive Date: 03/17/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001009

## BATCH QC ASSOCIATED WITH SAMPLE

|     |               |            |           |     |     |          |       |        |  |
|-----|---------------|------------|-----------|-----|-----|----------|-------|--------|--|
| DUP | Neptunium-237 | 13994-20-2 | U-2.2E-03 | n/a | RPD | 04/01/05 | 0.000 | 25.000 |  |
|-----|---------------|------------|-----------|-----|-----|----------|-------|--------|--|

## BATCH QC

|       |               |            |          |        |         |          |         |          |   |
|-------|---------------|------------|----------|--------|---------|----------|---------|----------|---|
| BLANK | Neptunium-237 | 13994-20-2 | -1.4e-08 | -0.000 | pCi/g   | 04/01/05 | -10.000 | 1000.000 |   |
| LCS   | Neptunium-237 | 13994-20-2 | 49.5     | 49.500 | % Recov | 04/01/05 | 75.000  | 125.000  | * |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622

Matrix: SOLID

Test: Plutonium Isotopes by AEA

SAF Number: F03-025

Sample Date: 03/18/05

Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|     |                   |            |         |        |     |          |       |        |   |
|-----|-------------------|------------|---------|--------|-----|----------|-------|--------|---|
| DUP | Pu-239/240 by AEA | PU-239/240 | 7.2e-02 | 76.923 | RPD | 04/13/05 | 0.000 | 20.000 | * |
|-----|-------------------|------------|---------|--------|-----|----------|-------|--------|---|

## BATCH QC

|       |                   |            |         |        |         |          |         |          |
|-------|-------------------|------------|---------|--------|---------|----------|---------|----------|
| BLANK | Pu-239/240 by AEA | PU-239/240 | 1.3e-01 | 0.130  | pCi/g   | 04/13/05 | -10.000 | 1000.000 |
| LCS   | Pu-239/240 by AEA | PU-239/240 | 4.8e+01 | 97.561 | % Recov | 04/13/05 | 75.000  | 125.000  |

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050622  
 Matrix: SOLID  
 Test: Uranium Isotopes by AEA

SAF Number: F03-025  
 Sample Date: 03/18/05  
 Receive Date: 03/18/05

| QC Type | Analyte | CAS # | QC Found | QC Yield | Units | Analysis Date | Lower Limit | Upper Limit | RQ |
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|
|---------|---------|-------|----------|----------|-------|---------------|-------------|-------------|----|

Lab ID: W050001015

## BATCH QC ASSOCIATED WITH SAMPLE

|     |             |       |         |       |     |          |       |        |
|-----|-------------|-------|---------|-------|-----|----------|-------|--------|
| DUP | Uranium-238 | U-238 | 1.6e-01 | 0.000 | RPD | 04/13/05 | 0.000 | 20.000 |
|-----|-------------|-------|---------|-------|-----|----------|-------|--------|

## BATCH QC

|       |             |            |         |         |         |          |         |          |
|-------|-------------|------------|---------|---------|---------|----------|---------|----------|
| BLANK | Uranium-238 | 24678-82-8 | 7.9e-03 | 0.008   | pCi/g   | 04/13/05 | -10.000 | 1000.000 |
| LCS   | Uranium-238 | 24678-82-8 | 8.6e+01 | 113.427 | % Recov | 04/13/05 | 75.000  | 125.000  |

**WSCF**  
**ANALYTICAL COMMENT REPORT**

**Attention:** Steve Trent  
**Project Number** F03-025

**Group #:** WSCF20050622

| Sample #   | Client ID | Lab Area | Test  | Comment   |
|------------|-----------|----------|-------|---|
|            |           | VALGROUP |       | GEA Am-241 detected at 0.07 pCi/g.<br>IC Anions: Low recoveries on phosphate-P due to probable matrix interference/effect<br><br>Np237 LCS recovery is low so the sample result is an estimated value.<br><br>ICP-MS: Preparation blank units are in ug/L (ppb). Ag and Sb LCS recoveries are within mfg. specifications; no flags issued.<br><br>Organics: Sample concentrations have been corrected for moisture and are reported on a dry weight basis. den<br>8015: SPK-RPD high for Ethylene Glycol (MS/MSD at 80/121% Rec. Hence RPD of 41%. Analyte was not in sample. gar |
| W050001015 | B19411    | GRP      | TRENT | VALTEST<br>PCBs complete list<br><br>Pu239 duplicate is flagged but the sample activity is low level. RPD does not apply to low level samples. kmh<br>cgc   |

**Lab Areas:** VALGROUP - Group Validation  
 LOGSAMP - Login for Sample

VALTEST - Test Validation  
 LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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**WSCF**  
**TENTATIVELY IDENTIFIED PEAK REPORT**

| <b>Attention:</b><br><b>Project Number</b> | Steve Trent<br>F03-025 :F03-025 |     |       |                        |                                |          | <b>Group #:</b> | WSCF20050622 |          |       |
|--|---------------------------------|-----|-------|------------------------|--------------------------------|----------|-----------------|--------------|----------|-------|
| Sample #                                   | Client ID                       |     |       | Test Name              | Peak Name                      | CAS#     | RT              | RQ           | Result   | Units |
| W050001015                                 | B19411                          | GRP | TRENT | SW-846 8270B Semi-Vols | SMP 12.886 Diethylphthalate    | 84-66-2  | 12.88883        |              | 4.5e +02 | ug/kg |
| W050001015                                 | B19411                          | GRP | TRENT | SW-846 8270B Semi-Vols | SMP 22.960 Unknown Hydrocarbon | Unknown  | 22.96096        | J            | 1.8e +02 | ug/kg |
| W050001015                                 | B19411                          | GRP | TRENT | SW-846 8270B Semi-Vols | SMP 25.055 Unknown Hydrocarbon | Unknown  | 25.05596        | J            | 1.6e +02 | ug/kg |
| W050001015                                 | B19411                          | GRP | TRENT | SW-846 8270B Semi-Vols | SMP 25.713 Nonadecane          | 629-92-5 | 25.71333        | J            | 1.5e +03 | ug/kg |

**RQ=Result Qualifier**      J - Analyte is an estimate, has potentially larger errors

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*Groundwater Remediation Program*

WGPPE v 1.1 Report #: 20050622

Report Date: 27-apr-2005

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# WSCF

## METHOD REFERENCES REPORT

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|            |   |  |
|------------|---|--|
| LA-212-411 | Determination of Soil pH Measurement<br>EPA SW-846 9045C  | SOIL AND WASTE pH  |
| LA-503-401 | LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY<br>EPA-600/4-86-024 300.7                             | Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical |
| LA-505-411 | LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE<br>EPA SW-846 6010B        | INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY                          |
| LA-505-412 | LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY<br>EPA-600/R-94-111 200.8   | DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS |
| LA-508-471 | LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP<br>None                    | No reference to any industry method.   |
| LA-508-481 | LA-508-481: GAMMA ENERGY ANALYSIS USING PROCOUNT SOFTWARE<br>None   | No reference to any industry method.   |
| LA-519-412 | LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C<br>EPA-600/4-79-020 160.3<br>Standard Methods 2540B | RESIDUE, TOTAL<br>Total Solids Dried at 103-105 C                                |
| LA-523-427 | LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY<br>EPA SW-846 3510C<br>EPA SW-846 3545   | SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION<br>PRESSURIZED FLUID EXTRACTION (PFE) |

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at  
\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line  
links to full-text versions of the procedures and methods, where available.

Report Date: 27-apr-2005

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# WSCF

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|            |   |  |
|------------|---|--|
|            | EPA SW-846 3665A  | SULFURIC ACID/PERMANGANATE CLEANUP   |
|            | EPA SW-846 8000B  | DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS                                      |
|            | EPA SW-846 8082   | POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY                         |
| LA-523-443 | LA-523-443: GAS CHROMATOGRAPH ANALYSIS OF GASOLINE RANGE TOTAL PETROLEUM HYDROCARBONS<br>WDOE TPH NWTPh-G | Volatile Petroleum Products Method for Soil and Water                          |
| LA-523-455 | LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846  |  |
|            | EPA SW-846 8000B  | DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS                                      |
|            | EPA SW-846 8260B  | VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)     |
| LA-523-456 | LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C  |  |
|            | EPA SW-846 8000B  | DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS                                      |
|            | EPA SW-846 8270C  | SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS) |
| LA-533-410 | LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY  |  |
|            | EPA-600/R-94-111 300  | DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY                        |
| LA-695-402 | LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC                           |  |
|            | EPA-600/4-79-020 335.2  | Cyanide, Total   |
| NWTPh      | NWTPh-Diesel and/or Gasoline  |  |
|            | WDOE NWTPh-Dx/Gx  | Total Petroleum Hydrocarbons - Diesel/Gasoline                                 |
| Organics   | Organics - Alcohols, Glycols  |  |

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf>. This document includes on-line links to full-text versions of the procedures and methods, where available.

Report Date: 27-apr-2005

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# WSCF

## METHOD REFERENCES REPORT

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EPA SW-846 8015B

Nonhalogenated Organics Using GC/FID

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\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf. This document includes on-line  
links to full-text versions of the procedures and methods, where available.

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## W13q Worklist/Batch/QC Report for Group# WSCF20050622

| WL#   | S# | Batch | QC#   | Tray      | Type | Sample#    | Test                           |
|-------|----|-------|-------|-----------|------|------------|--------------------------------|
|       |    |       |       | SAMPLE    |      | W050001015 | Percent Solids                 |
| 25429 | 1  | 25795 | 29241 | BLANK     |      |            | Gamma Energy Analysis-grd H2O  |
| 25429 | 2  | 25795 | 29241 | LCS       |      |            | Gamma Energy Analysis-grd H2O  |
| 25429 | 3  | 25795 | 29241 | DUP       |      | W050001015 | Gamma Energy Analysis-grd H2O  |
| 25429 | 4  | 25795 | 29241 | SAMPLE    |      | W050001015 | Gamma Energy Analysis-grd H2O  |
| 25434 | 1  | 25800 | 29266 | BLANK     |      |            | ICP Metals Analysis, Grd H2O P |
| 25434 | 2  | 25800 | 29266 | LCS       |      |            | ICP Metals Analysis, Grd H2O P |
| 25434 | 7  | 25800 | 29266 | MS        |      | W050001009 | ICP Metals Analysis, Grd H2O P |
| 25434 | 8  | 25800 | 29266 | MSD       |      | W050001009 | ICP Metals Analysis, Grd H2O P |
| 25434 | 8  | 25800 | 29266 | SPK-RPD   |      | W050001009 | ICP Metals Analysis, Grd H2O P |
| 25434 | 10 | 25800 | 29266 | MS        |      | W050001015 | ICP Metals Analysis, Grd H2O P |
| 25434 | 11 | 25800 | 29266 | MSD       |      | W050001015 | ICP Metals Analysis, Grd H2O P |
| 25434 | 9  | 25800 | 29266 | SAMPLE    |      | W050001015 | ICP Metals Analysis, Grd H2O P |
| 25434 | 11 | 25800 | 29266 | SPK-RPD   |      | W050001015 | ICP Metals Analysis, Grd H2O P |
|       |    |       | 29271 | DUP       |      | W050001015 | pH Soil and Waste Measurement  |
|       |    |       | 29271 | SAMPLE    |      | W050001015 | pH Soil and Waste Measurement  |
| 25491 | 2  | 25856 | 29283 | BLANK     |      |            | Anions by Ion Chromatography   |
| 25491 | 9  | 25856 | 29283 | BLANK     |      |            | Anions by Ion Chromatography   |
| 25491 | 3  | 25856 | 29283 | LCS       |      |            | Anions by Ion Chromatography   |
| 25491 | 5  | 25856 | 29283 | DUP       |      | W050001015 | Anions by Ion Chromatography   |
| 25491 | 6  | 25856 | 29283 | MS        |      | W050001015 | Anions by Ion Chromatography   |
| 25491 | 7  | 25856 | 29283 | MSD       |      | W050001015 | Anions by Ion Chromatography   |
| 25491 | 4  | 25856 | 29283 | SAMPLE    |      | W050001015 | Anions by Ion Chromatography   |
| 25507 | 2  | 25874 | 29301 | BLANK     |      |            | Ammonia (N) by IC              |
| 25507 | 9  | 25874 | 29301 | BLANK     |      |            | Ammonia (N) by IC              |
| 25507 | 3  | 25874 | 29301 | LCS       |      |            | Ammonia (N) by IC              |
| 25507 | 5  | 25874 | 29301 | DUP       |      | W050001015 | Ammonia (N) by IC              |
| 25507 | 6  | 25874 | 29301 | MS        |      | W050001015 | Ammonia (N) by IC              |
| 25507 | 7  | 25874 | 29301 | MSD       |      | W050001015 | Ammonia (N) by IC              |
| 25507 | 4  | 25874 | 29301 | SAMPLE    |      | W050001015 | Ammonia (N) by IC              |
|       |    |       | 29315 | BLANK     |      |            | Cyanide by Midi/Spectrophotom  |
|       |    |       | 29315 | BLNK-PREP |      |            | Cyanide by Midi/Spectrophotom  |
|       |    |       | 29315 | LCS       |      |            | Cyanide by Midi/Spectrophotom  |
|       |    |       | 29315 | MS        |      | W050001015 | Cyanide by Midi/Spectrophotom  |
|       |    |       | 29315 | MSD       |      | W050001015 | Cyanide by Midi/Spectrophotom  |
|       |    |       | 29315 | SAMPLE    |      | W050001015 | Cyanide by Midi/Spectrophotom  |
|       |    |       | 29315 | SPK-RPD   |      | W050001015 | Cyanide by Midi/Spectrophotom  |
| 25551 | 21 | 25917 | 29336 | BLANK     |      |            | ICP-2008 MS All possible metal |
| 25551 | 22 | 25917 | 29336 | LCS       |      |            | ICP-2008 MS All possible metal |
| 25551 | 24 | 25917 | 29336 | MS        |      | W050001015 | ICP-2008 MS All possible metal |
| 25551 | 25 | 25917 | 29336 | MSD       |      | W050001015 | ICP-2008 MS All possible metal |
| 25551 | 23 | 25917 | 29336 | SAMPLE    |      | W050001015 | ICP-2008 MS All possible metal |
| 25551 | 25 | 25917 | 29336 | SPK-RPD   |      | W050001015 | ICP-2008 MS All possible metal |
| 25483 | 1  | 25848 | 29358 | BLANK     |      |            | Neptunium by AEA               |
| 25483 | 2  | 25848 | 29358 | LCS       |      |            | Neptunium by AEA               |
| 25483 | 3  | 25848 | 29358 | DUP       |      | W050001009 | Neptunium by AEA               |

|       |   |       |         |            |            |                              |
|-------|---|-------|---------|------------|------------|------------------------------|
| 25483 | 5 | 25848 | 29358   | SAMPLE     | W050001015 | Neptunium by AEA             |
|       |   | 29431 | BLANK   |            |            | PCBs complete list           |
|       |   | 29431 | LCS     |            |            | PCBs complete list           |
|       |   | 29431 | MS      | W050001015 |            | PCBs complete list           |
|       |   | 29431 | MSD     | W050001015 |            | PCBs complete list           |
|       |   | 29431 | SAMPLE  | W050001015 |            | PCBs complete list           |
|       |   | 29431 | SPK-RPD | W050001015 |            | PCBs complete list           |
|       |   | 29431 | SURR    | W050001015 |            | PCBs complete list           |
|       |   | 29512 | BLANK   |            |            | WTPH-D TPH Diesel Range (Wa) |
|       |   | 29512 | LCS     |            |            | WTPH-D TPH Diesel Range (Wa) |
|       |   | 29512 | SAMPLE  | W050001015 |            | WTPH-D TPH Diesel Range (Wa) |
|       |   | 29512 | SURR    | W050001015 |            | WTPH-D TPH Diesel Range (Wa) |
|       |   | 29512 | MS      | W050001051 |            | WTPH-D TPH Diesel Range (Wa) |
|       |   | 29512 | MSD     | W050001051 |            | WTPH-D TPH Diesel Range (Wa) |
|       |   | 29512 | SPK-RPD | W050001051 |            | WTPH-D TPH Diesel Range (Wa) |
|       |   | 29515 | BLANK   |            |            | SW-846 8270B Semi-Vols       |
|       |   | 29515 | LCS     |            |            | SW-846 8270B Semi-Vols       |
|       |   | 29515 | SAMPLE  | W050001015 |            | SW-846 8270B Semi-Vols       |
|       |   | 29515 | SURR    | W050001015 |            | SW-846 8270B Semi-Vols       |
|       |   | 29515 | MS      | W050001051 |            | SW-846 8270B Semi-Vols       |
|       |   | 29515 | MSD     | W050001051 |            | SW-846 8270B Semi-Vols       |
|       |   | 29515 | SPK-RPD | W050001051 |            | SW-846 8270B Semi-Vols       |
| 25690 | 1 | 26058 | 29535   | BLANK      |            | Uranium Isotopics by AEA     |
| 25690 | 2 | 26058 | 29535   | LCS        |            | Uranium Isotopics by AEA     |
| 25690 | 3 | 26058 | 29535   | DUP        | W050001015 | Uranium Isotopics by AEA     |
| 25690 | 4 | 26058 | 29535   | SAMPLE     | W050001015 | Uranium Isotopics by AEA     |
| 25715 | 1 | 26083 | 29548   | BLANK      |            | Alcohols, Glycols - 8015     |
| 25715 | 2 | 26083 | 29548   | LCS        |            | Alcohols, Glycols - 8015     |
| 25715 | 4 | 26083 | 29548   | DUP        | W050001015 | Alcohols, Glycols - 8015     |
| 25715 | 5 | 26083 | 29548   | MS         | W050001015 | Alcohols, Glycols - 8015     |
| 25715 | 6 | 26083 | 29548   | MSD        | W050001015 | Alcohols, Glycols - 8015     |
| 25715 | 3 | 26083 | 29548   | SAMPLE     | W050001015 | Alcohols, Glycols - 8015     |
| 25715 | 6 | 26083 | 29548   | SPK-RPD    | W050001015 | Alcohols, Glycols - 8015     |
| 25717 | 1 | 26085 | 29552   | BLANK      |            | NWTPH-GX TPH Gasoline Range  |
| 25717 | 2 | 26085 | 29552   | LCS        |            | NWTPH-GX TPH Gasoline Range  |
| 25717 | 4 | 26085 | 29552   | DUP        | W050001015 | NWTPH-GX TPH Gasoline Range  |
| 25717 | 5 | 26085 | 29552   | MS         | W050001015 | NWTPH-GX TPH Gasoline Range  |
| 25717 | 6 | 26085 | 29552   | MSD        | W050001015 | NWTPH-GX TPH Gasoline Range  |
| 25717 | 3 | 26085 | 29552   | SAMPLE     | W050001015 | NWTPH-GX TPH Gasoline Range  |
| 25717 | 6 | 26085 | 29552   | SPK-RPD    | W050001015 | NWTPH-GX TPH Gasoline Range  |
|       |   | 29554 | BLANK   |            |            | VOA Ground Water Protection  |
|       |   | 29554 | LCS     |            |            | VOA Ground Water Protection  |
|       |   | 29554 | MS      | W050001015 |            | VOA Ground Water Protection  |
|       |   | 29554 | MSD     | W050001015 |            | VOA Ground Water Protection  |
|       |   | 29554 | SAMPLE  | W050001015 |            | VOA Ground Water Protection  |
|       |   | 29554 | SPK-RPD | W050001015 |            | VOA Ground Water Protection  |
|       |   | 29554 | SURR    | W050001015 |            | VOA Ground Water Protection  |
| 25691 | 1 | 26060 | 29564   | BLANK      |            | Americium by AEA             |
| 25691 | 2 | 26060 | 29564   | LCS        |            | Americium by AEA             |
| 25691 | 3 | 26060 | 29564   | DUP        | W050001015 | Americium by AEA             |
| 25691 | 4 | 26060 | 29564   | SAMPLE     | W050001015 | Americium by AEA             |

|       |   |       |       |        |            |                            |
|-------|---|-------|-------|--------|------------|----------------------------|
| 25692 | 1 | 26059 | 29565 | BLANK  |            | Plutonium Isotopics by AEA |
| 25692 | 2 | 26059 | 29565 | LCS    |            | Plutonium Isotopics by AEA |
| 25692 | 3 | 26059 | 29565 | DUP    | W050001015 | Plutonium Isotopics by AEA |
| 25692 | 4 | 26059 | 29565 | SAMPLE | W050001015 | Plutonium Isotopics by AEA |

**M8141-SLF-05-196**

**ATTACHMENT 3**

**SAMPLE RECEIPT INFORMATION**

**Consisting of 4 pages  
Including cover page**

File

**Waste Sampling and Characterization Facility**  
 P.O. BOX 1970 S3-30, Richland, WA 99352  
 PHONE: (509) 373-7004/FAX: (509) 373-7134

**ACKNOWLEDGMENT OF SAMPLES RECEIVED**

4/18/05

Groundwater Remediation Program

Richland, WA 99354  
 Attn: Steve Trent

Customer Code: GPP  
 PO#: 119143/ES10  
 Group#: 20050622  
 Project#: F03-025  
 Proj Mgr: Steve Trent A0-21  
 Phone: 373-5869

The following samples were received from you on 03/18/05. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

| Sample#    | Sample Id | Matrix   | Sample Date |
|------------|-----------|--|-------------|
|            |           | Tests Scheduled                                |             |
| W050001015 | B19411    | GRP TRENT Solid, or handle as if solid         | 03/18/05    |
|            |           | @2008 @8015GPP @AEA-30 @AEA-31 @AEA-32         |             |
|            |           | @AEA-33 @GEA-GPP @GPP6010 @IC-30 @PCBGPP @SVOC |             |
|            |           | @TPHD-WA @TPHG-WA @VOA-GPP CN-02 NH4-IC PERSO  |             |
|            |           | PH-30  |             |

**Test Acronym Description**

| Test Acronym | Description                    |
|--------------|--------------------------------|
| @2008        | ICP-2008 MS All possible metal |
| @8015GPP     | Alcohols, Glycols - 8015       |
| @AEA-30      | Plutonium Isotopics by AEA     |
| @AEA-31      | Americium by AEA               |
| @AEA-32      | Uranium Isotopics by AEA       |
| @AEA-33      | Neptunium by AEA               |
| @GEA-GPP     | Gamma Energy Analysis-grd H2O  |
| @GPP6010     | ICP Metals Analysis, Grd H2O P |
| @IC-30       | Anions by Ion Chromatography   |
| @PCBGPP      | PCBs complete list             |
| @SVOCGPP     | SW-846 8270B Semi-Vols         |
| @TPHD-WA     | WTPH-D TPH Diesel Range (Wa)   |
| @TPHG-WA     | NWTPH-GX TPH Gasoline Range    |
| @VOA-GPP     | VOA Ground Water Protection    |
| CN-02        | Cyanide by Midi/Spectrophotom  |
| NH4-IC       | Ammonia (N) by IC              |
| PERSOLID     | Percent Solids                 |
| PH-30        | pH Soil and Waste Measurement  |

| FLUOR Hanford Inc.  |   | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST      |                     |                                      |                                      |   |                                      | 04/18/05                             |                                      | F03-025-134                          | PAGE 1 OF 1       |
|---|---|---|---------------------|--------------------------------------|--------------------------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------|
| COLLECTOR   | Dope/Pfister/Tire/Wilberg NOX LUR                     | COMPANY CONTACT                               |                     |                                      | TELEPHONE NO.                        |   | PROJECT COORDINATOR                  |                                      | PRICE CODE                           | BN                                   | DATA TURNAROUND   |
| SAMPLING LOCATION   | 216-2-7; 197.5ft-200ft                                | PROJECT DESIGNATION                           |                     |                                      |                                      |   | TRENT, SJ                            |                                      |                                      |                                      | 45 Days / 45 Days |
| ICE CHEST NO.   | 20050622  | FIELD LOGBOOK NO.                             |                     |                                      | COA                                  |   | METHOD OF SHIPMENT                   |                                      | AIR QUALITY                          | <input type="checkbox"/>             |                   |
| SHIPPED TO  | Waste Sampling & Characterization                     | OFFSITE PROPERTY NO.                          |                     |                                      | NA                                   |   | BILL OF LADING/AIR BILL NO.          |                                      | NA                                   |                                      |                   |
| MATRIX*   | POSSIBLE SAMPLE HAZARDS/ REMARKS                      |   | PRESERVATION        | Cool 4C                              | Cool 4C                              | Cool 4C   | Cool 4C                              | None                                 | None                                 | None                                 |                   |
| A=Air<br>DL=Drum<br>Liquids<br>DS=Drum<br>Solids<br>L=Liquid<br>O=Oil<br>S=Soil<br>SE=Sediment<br>T=Tissue<br>V=Vegetation<br>W=Water<br>WI=Wipe<br>X=Other | N/A   |   | TYPE OF CONTAINER   | Gs*                                  | gG                                   | gG  | Gs*                                  | P                                    | gG                                   | gG                                   |                   |
|   |   |   | NO. OF CONTAINER(S) | 3                                    | 1                                    | 1   | 3                                    | 1                                    | 1                                    | 1                                    |                   |
|   |   |   | VOLUME              | 40mL                                 | 120mL                                | 120mL   | 40mL                                 | 500mL                                | 250mL                                | 120mL                                |                   |
|   | SPECIAL HANDLING AND/OR STORAGE<br><i>Radioactive</i> |   | SAMPLE ANALYSIS     | SEE ITEM (1) IN SPECIAL INSTRUCTIONS | SEE ITEM (2) IN SPECIAL INSTRUCTIONS | PCBM - 8042;  | SEE ITEM (3) IN SPECIAL INSTRUCTIONS | SEE ITEM (4) IN SPECIAL INSTRUCTIONS | SEE ITEM (5) IN SPECIAL INSTRUCTIONS | SEE ITEM (6) IN SPECIAL INSTRUCTIONS |                   |
| SAMPLE NO.  | MATRIX*   | SAMPLE DATE                                   | SAMPLE TIME         |                                      |                                      |   |                                      |                                      |                                      |                                      |                   |
| B19411<br><i>w05000015</i>  | SOIL  | 3/18/05                                       | 0738                | X                                    | X                                    | X   | X                                    | X                                    | X                                    | X                                    |                   |
| CHAIN OF POSSESSION   |   |   |                     |                                      |                                      | SIGN/ PRINT NAMES   |                                      |                                      |                                      |                                      |                   |
| RELINQUISHED BY/REMOVED FROM<br><i>J. Walker</i>  | DATE/TIME<br>3/18/05 09:17                            | RECEIVED BY/STORED IN<br><i>T. A. Frazier</i> |                     |                                      | DATE/TIME<br>3/18/05 09:30           | SPECIAL INSTRUCTIONS<br>SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS |                                      |                                      |                                      |                                      |                   |
| RELINQUISHED BY/REMOVED FROM  | DATE/TIME   | RECEIVED BY/STORED IN                         |                     |                                      | DATE/TIME                            |   |                                      |                                      |                                      |                                      |                   |
| RELINQUISHED BY/REMOVED FROM  | DATE/TIME   | RECEIVED BY/STORED IN                         |                     |                                      | DATE/TIME                            |   |                                      |                                      |                                      |                                      |                   |
| RELINQUISHED BY/REMOVED FROM  | DATE/TIME   | RECEIVED BY/STORED IN                         |                     |                                      | DATE/TIME                            |   |                                      |                                      |                                      |                                      |                   |
| RELINQUISHED BY/REMOVED FROM  | DATE/TIME   | RECEIVED BY/STORED IN                         |                     |                                      | DATE/TIME                            |   |                                      |                                      |                                      |                                      |                   |
| LABORATORY SECTION  | RECEIVED BY   |   |                     |                                      |                                      |   | TITLE                                |                                      | DATE/TIME                            |                                      |                   |
| FINAL SAMPLE DISPOSITION  | DISPOSAL METHOD                                       |   |                     |                                      |                                      |   | DISPOSED BY                          |                                      | DATE/TIME                            |                                      |                   |

|   |  |  |  |                                   |
|---|--|--|--|-----------------------------------|
| FLUOR Hanford Inc.                              |  | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST |  | PAGE 2 OF 2                       |
| COLLECTOR<br>PIPE/PLASTER/WIRE WHEELS           | COMPANY CONTACT<br>TRENT, STEVE                              | PROJECT COORDINATOR<br>TRENT, SU         | PRICE CODE<br>8N                         | DATA TURNAROUND                   |
| SAMPLING LOCATION<br>216-Z-7; 197-SR-2001       | PROJECT DESIGNATION<br>200-LW-1/LW-2 Characterization - Soil | SAF NO.<br>R03-025                       | AIR QUALITY<br><input type="checkbox"/>  | 45 Days                           |
| ICE CHEST NO.                                   | FIELD LOGBOOK NO.<br>HNF-N-356 1                             | COA<br>119143ES10                        | METHOD OF SHIPMENT<br>Government Vehicle | BILL OF LADING/AIR BILL NO.<br>NA |
| SHIPPED TO<br>Waste Sampling & Characterization | OFFSITE PROPERTY NO.<br>NA                                   |  |  |                                   |

The lab is to analyze pH within 24 hours of sample receipt. The lab is to report ketosene range organics from the WTPH-O analysis. FH acknowledges that the analytical holding time for Nitrate, Nitrite and Phosphate by EPA Method 300.0 will not be met.

P. O. Box 1105

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